

# **Recent Research on Tax Administration and Compliance**

*Selected Papers Given at the  
2009 IRS Research Conference*

**Georgetown University School of Law  
Washington, DC  
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Compiled and edited by James Dalton and Martha Eller Gangi\*  
Statistics of Income Division, Internal Revenue Service

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\*Prepared under the direction of Barry W. Johnson, Chief, Special Studies Branch

## **Foreword**

This edition of the IRS Research Bulletin (Publication 1500) features selected papers from the latest IRS Research Conference, held at the Georgetown University School of Law in Washington, DC, on July 8-9, 2009. Conference presenters and attendees included researchers from all areas of the IRS, officials from other Government agencies, and academic and private sector experts on tax policy, tax administration, and tax compliance.

The conference began with a keynote address by Austan Goolsbee, member of the Council of Economic Advisors and staff director and chief economist of the President's Economic Recovery Advisory Board. Dr. Goolsbee acknowledged the critical role of research in support of both tax policy and tax administration. He expressed his appreciation for the research being conducted at the IRS, in academia, and at other institutions and agencies. He concluded his remarks by answering a few questions from the audience.

Mark Mazur, former Director of Research, Analysis, and Statistics, then led a panel discussion that highlighted and critiqued the IRS's tax gap estimation methodologies. Panelists discussed the strengths and weaknesses of recent estimates' major components. The remainder of the conference included sessions on tax systems and taxpayer behavior, the tax behavior of corporations, measuring and facilitating low-income tax benefits, issues affecting high-wealth individuals, and tax preparation services. For the first time, the conference also included a poster session highlighting additional IRS research.

We hope that this volume will enable IRS executives, managers, employees, stakeholders, and tax administrators elsewhere to stay abreast of the latest trends and research findings affecting Federal tax administration. We also hope that the research featured here will stimulate improved tax administration and additional helpful research.

## Acknowledgments

The IRS Research Conference was the result of substantial effort and preparation over a number of months by many people. The conference program was assembled by a committee representing research organizations throughout the IRS. Members of the program committee included Mark Mazur (formerly of Research, Analysis, and Statistics), Janice Hedemann (National Headquarters Office of Research), Melissa Kovalick (Research, Analysis, and Statistics), Alan Plumley, Ed Emblom, Kay Wolman, Natalia Carro, Rahul Tikekar, George Contos (National Headquarters Office of Research), Elizabeth Kruse, Chris Hess (Office of Program Evaluation and Risk Analysis), Martha Eller Gangi, Barry Johnson (Statistics of Income), John DeWald, Caroline Trinkwalder (Small Business and Self-Employed), Shelley Pope (Tax Exempt and Government Entities), Howard Rasey (Wage and Investment), Tom Beers (Taxpayer Advocate), Davey Sparkman (Criminal Investigation), and David Stanley (Large and Mid-Size Business). Melissa Kovalick, Elizabeth Kruse, Martha Eller Gangi, Marcella Garland, Craig Swinford, and Bobbie Vaira oversaw numerous details to ensure that the conference ran smoothly.

This volume was prepared by Paul Bastuscheck, Clay Moulton, Lisa Smith, and Camille Swick (layout and graphics) and James Dalton and Martha Eller Gangi (editors), all of the Statistics of Income Division. The authors of the papers are responsible for their content, and views expressed in these papers do not necessarily represent the views of the Department of the Treasury or the Internal Revenue Service.

We appreciate the contributions of everyone who helped make the IRS Research Conference a success.

Janice M. Hedemann  
Director, National Headquarters Office of Research  
Chair, 2009 IRS Research Conference

Note: The papers included in this volume may also be found on the IRS Web site at <http://www.irs.gov/taxstats/article/...>

## 2009 IRS Research Conference

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# **Tax Systems and Taxpayer Behavior**

**Boame**

**Jelfs ♦ Lyner**

# A Panel Analysis of Behavior Change in Individual Income Tax Compliance

*Attah K. Boame,  
Canada Revenue Agency*

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Income tax is an important source of revenue for both federal and provincial/territorial governments in Canada. The Canadian tax system assumes voluntary compliance and self-assessment by taxpayers. Voluntary compliance is based on mutual responsibility. Individuals, corporations, and trusts that are obliged to pay tax in Canada are expected to meet their responsibilities under the law. The Canada Revenue Agency (CRA) is responsible for maintaining public confidence in the fairness and integrity of the tax system through the effective delivery of its mission. The CRA mission is to promote voluntary compliance through communication, quality service, and responsible enforcement. Even though many taxpayers comply with their tax obligations, others do not.

The tax literature identifies several factors, both economic and noneconomic, as determinants of the taxpayer compliance decision. This research aims at identifying the factors that contribute to the observed tax compliance of individual taxpayers over time based on individual income tax returns. This study is carried out within the Baseline Compliance Research, a component of the Compliance Measurement Framework (CMF), which focuses on compliance of all CRA's major client groups.<sup>1,2</sup>

While some of the Baseline Compliance Research studies use cross-section data to analyze tax compliance for a particular year, there is a research gap on panel (longitudinal) data analysis of tax compliance.<sup>3</sup> This research provides a first Canadian study of tax compliance using panel data from 1996 to 2002. This research uses microdata to identify individual income taxpayers' compliance behavior.<sup>4</sup> The same taxpayers are followed for

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<sup>1</sup> Canada Revenue Agency (2003), "Compliance Measurement Framework," Ottawa, September.

<sup>2</sup> These client segments are Individuals (T1 returns), Businesses [Unincorporated Businesses (T1 returns), Corporations (T2 returns), GST Registrants, and Employers], Charities, and Trusts (T3 returns).

<sup>3</sup> Maloney, G. (2005), "The Determinants of Canadian Tax Compliance Behavior: A Filing and Payment Compliance Perspective," Compliance Research Division, CRA; and Li, W. (2007), "Individual Income Tax Reporting Compliance in Canada: Results of Assessment and Reassessment," Compliance Research Division, CRA.

<sup>4</sup> Macroeconomic indicators also influence a taxpayer's compliance behavior. However, analysis of macroeconomic variables entails the use of aggregate-level macroeconomic data, which are not available from the T1 tax returns.

Tax Years 1996 to 2002 to find out changes in their tax filing, reporting, and paying patterns over the period.

The paper is structured as follows. It begins with the definition of tax compliance that sets the context for the analysis, and then notes some caveats with the analysis, which is followed by literature review and the data used in the analysis. The next section provides a general overview of tax compliance rates with regard to demography, province/territory, income, tax rates, and filing methods. The following section carries out a multivariate analysis to provide empirical evidence of tax compliance discussed in the preceding section. The last section concludes the paper with suggestions for further research to improve resource allocation strategies.

## **Tax Compliance Defined**

The Compliance Measurement Framework (CMF, 2003) identifies four main compliance requirements as:

- Registering when required (applicable to business clients);
- Filing required tax forms on time;
- Reporting complete and accurate information; and
- Paying any amounts due in a timely manner (without enforcement action).

Tax noncompliance is the failure to register, file, report, and/or pay correctly and on a timely basis. Tax compliance in this study refers to individual filing, reporting, and payment compliance. The tax compliance rate for filing, reporting, and payment is the number of compliant taxpayers divided by the total taxpayers (number of observations is 18,300,485 for each tax year) in the dataset. The detailed definitions of the three compliance requirements for this study are as follows:

## **Filing Compliance<sup>5</sup>**

Filing compliance means filing tax returns on time, while filing noncompliance occurs when this obligation is not met. Thus, late filers are included while nonfilers are excluded in this study. The filing deadlines for each tax

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<sup>5</sup> The dataset for the study is Assessed and Reassessed T1 Individual Tax Returns, and, thus, the compliance definitions here are skewed toward T4 recipients.



year are April 30 for individuals, and June 15 for self-employed individuals and spouses of self-employed individuals in the following calendar year.<sup>6</sup> If a taxpayer does not file his or her tax return by the deadline, he or she is assessed a late filing penalty.<sup>7</sup> This study uses the presence or otherwise of the late filing penalty charged to an account as an indicator of filing compliance and/or filing noncompliance. The filing compliance rate is defined as the number of taxpayers with no late filing penalty (i.e., they filed taxes on time) as a percentage of the panel population for each tax year.

## **Reporting Compliance**

Researchers working with individual level tax data generally use some measure of unreported income or unreported taxes as the dependent variable in econometric models to measure tax-reporting noncompliance (Andreoni et al, 1998). Unreported (underreported) income is the gap between an individual's calculated total income by CRA and his or her reported total income. The total income is the amount on line 150 of an individual's T1 return. One problem of using the total income reported as a measure of tax noncompliance is that one may report complete and accurate information for line 150 but may overstate deductions and tax credits. Hence, using total income reported to determine tax compliance or tax noncompliance does not capture these effects.

Reporting tax noncompliance in this study is defined as the underreported tax payable. This is the gap between the total tax payable (line 435) as calculated by CRA and the total tax payable (line 435) as reported by individual taxpayers on their T1 returns. The total tax payable (line 435) is the sum of net federal tax (line 420), CPP contributions payable on self-employment and other earnings (line 421), social benefits repayment (line 422), and provincial or territorial tax (line 428).<sup>8</sup> An individual taxpayer is considered reporting noncompliant if the calculated total tax payable is greater than the

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<sup>6</sup> For instance, the filing deadlines for Tax Year 2002 are April 30, 2003, and June 15, 2003, respectively. If any of these dates falls on a holiday or weekend, then the deadline is the next business day after the holiday or weekend.

<sup>7</sup> Taxpayers whose late filing penalty is waived for various reasons are considered filing compliant even though they filed their taxes late. Also, refund returns are not assessed a late filing penalty and are assumed to be filing compliant.

<sup>8</sup> Even though compliance rates within the agency might be restricted to federal tax, provincial tax is included in this study. This is because the agency collects provincial and territorial tax on behalf of the provinces/territories, except Quebec. Also, the definition of tax payable (based on the T1 tax return) in this study includes provincial or territorial tax. To arrive at a refund (line 484) or balance owing (line 485) on the T1 tax return, provincial/territorial tax is included in the calculations.

reported total tax payable. In other words, if the calculated total tax payable is equal to the reported total tax payable, an individual taxpayer is said to be reporting compliant. The total tax payable is calculated based on the components listed above.

Canada Revenue Agency does not charge or refund a difference of \$2 or less of tax payable. Hence, any difference greater than \$2 tax payable implies taxpayer noncompliance. This study, however, for efficiency reasons (in terms of resources the agency will require to collect balances owing), defines tax noncompliance as any difference greater than \$50 of tax payable.<sup>9</sup> The reporting compliance rate is the number of taxpayers reporting accurately (i.e., with a tax payable difference of less than or equal to \$50 between assessment and what is reported) as a percentage of the panel population for each tax year.<sup>10</sup>

### **Payment Compliance**

This refers to an individual taxpayer's paying any amounts due in a timely manner without enforcement action by the CRA. In order to establish whether an individual taxpayer is payment compliant or otherwise, it is necessary to find out whether an amount owing is indicated on the return after the payment deadline. If so, then, by definition, the individual is payment noncompliant. The payment deadline for all individuals is April 30 following the tax year.<sup>11</sup> The absence of arrears interest on a return indicates payment compliance; that is, any return with assessed arrears interest would be defined as payment noncompliant. In addition, the amount of installment interest charged will be used as an indicator for payment noncompliance for individuals paying their taxes by installment. Any return that has one of these interest charges against it is deemed to be payment non-compliant.<sup>12</sup> Payment compliance rate is the number of taxpayers without arrears interest charges or installment interest charges as a percentage of the panel population for each tax year.

<sup>9</sup> The Processing Review Program of the Individual Returns and Payment Processing Directorate uses \$50 as the threshold for defining tax noncompliance. Li's (2007) paper also used \$50 as the threshold.

<sup>10</sup> It might be interesting to consider the reporting compliance rate for taxpayers who had tax payable. Since this is a subgroup of the entire taxpayers, a different study that emphasizes the reporting compliance behavior of this subgroup would be appropriate. This might be the subject of a future research project.

<sup>11</sup> For instance, the filing deadline for Tax Year 2002 is April 30, 2003. If this date falls on a holiday or weekend, then the deadline is the next business day after the holiday or weekend.

<sup>12</sup> Taxpayers whose arrears and installment interest charges are waived for various reasons are considered payment compliant.

## **Caveats**

The following presents the issues that might impact the results of this study; hence, its findings and conclusions should be interpreted noting these caveats:

- The compliant taxpayers in this paper refer only to those identified by the CRA through assessment, reassessment, and compliance review activities and do not include nonfilers. Taxpayers included in the study also may or may not have tax payable. Nonfilers and taxpayers with no tax payable are two subgroups within the taxpayer population, and require separate research projects to analyze their tax compliance behavior. This is beyond the scope of this project.
- Taxpayers using telephone filing (Telefile) to file their tax returns are not required to report their total tax payable. This might affect the reporting compliance rate for telephone filers. Since telephone filers account for about 2 percent of total taxpayers, this does not have a significant effect on the analysis. On the other hand, deleting telephone filers from the dataset would generate an unbalanced panel since the number of telephone filers varies over the study period. Therefore, telephone filing is included in the analysis.
- The total number of observations for each tax year (1996–2002) in the analysis is 18,300,485, which is about 80 percent of all taxpayers for each tax year. Hence, the analysis is not based on all taxpayers who filed tax returns for each tax year but rather on a panel of taxpayers who consistently filed their tax returns for all 7 years of the study period. This does not mean the taxpayer population in this study is skewed toward more compliant taxpayers. Even though the taxpayer population filed their taxes in all 7 years, they could still be late filers, not accurately reporting their tax owing, or not paying their tax owing on time.
- Overreported total tax payable also exists in the dataset. Overreporting is considered as tax reporting compliant in this paper.
- The multivariate regression models assume that there is no interaction between variables, or that the effect of each variable on the outcome is the same regardless of the levels of the other variables. Results of collinearity tests indicate very weak dependencies among the independent variables (see Appendix A for details).

## Literature Review

This section briefly reviews the tax compliance literature, noting some previous studies that are relevant to the analysis in this paper. In particular, the review provides information on the relevant variables that influence tax compliance. This provides guidance in selecting appropriate variables for this study. It is also relevant to find out whether the conclusions of this study reinforce or refute previous studies on tax compliance in other countries. In other words, are Canadian taxpayers unique in their tax compliance behavior, or does their behavior follow identified patterns of tax compliance in other countries?

The tax literature identifies several factors, both economic and non-economic, as determinants of the taxpayer noncompliance decision. Opportunity to evade, the marginal tax rate, income, demographic, and social factors all play roles in the evasion decision (see Andreoni et al. (1998) for an extensive review). Andreoni et al. 1998 note that, in general, the effect of tax rates on evasion remains unclear, which requires further research. Alm and Sanchez (1995) also note several economic and noneconomic factors that influence tax noncompliance. These include detection and punishment, burden of taxation, government services, overweighting of low probabilities, and social norms.

Empirical evidence indicates that older people are more tax compliant than younger people. Older people are more likely to be risk averse than younger people. The tax compliance literature shows that men are less compliant than women. The criminology literature and some papers on corruption have shown that females are on average more compliant than males (Torgler and Schneider, 2004). Baldry (1987) finds that males tend to evade more than females do. Marital status might influence legal or illegal behaviour, depending on the extent to which individuals are constrained by their social networks (Tittle, 1980). Torgler and Schneider (2004) find that married people seem to have a higher tax moral than singles. On the other hand, the Taxpayer Compliance Measurement Program (TCMP) data indicate that noncompliance is more common and of greater magnitude among households in which the head is married (Andreoni et al., 1998).

Tax compliance may be affected by education, the results of which could be favorable or unfavorable. Educated people may better understand the opportunities for tax evasion, which could influence their tax compliance behavior. On the other hand, educated people are more likely to have knowledge of tax laws that may reduce the noncompliance rate. Thus, the impact of education on tax compliance is more of an empirical question than

just speculation. The theoretical models all indicate that, as income rises, tax evasion should increase over most ranges. The tax compliance literature argues that self-employed taxpayers evade more taxes. The self-employed have higher tax compliance costs so taxes that become more visible to them (Lewis, 1982). Self-employed taxpayers would have more opportunity to evade their taxes than taxpayers who have their taxes deducted each payday by their employers. There is also no third party information reporting for self-employed taxpayers, which increases the opportunity to evade taxes.

## **Data**

A panel (longitudinal) dataset is constructed over a 7-year period (1996–2002) to study the tax compliance behavior of individual taxpayers. The dataset is based on T1 Sweep Initial Assessment and Reassessment of individual taxpayers' tax returns. The unit of analysis is the tax filers who filed all returns during 1996–2002, including late filers.<sup>13</sup> The unit of analysis is a balanced panel of taxpayers from 1996–2002, with a total of 18,300,485 observations (tax returns) for each of the 7 years.

## **Changes in Tax Compliance**

This section provides an overview of how tax compliance has changed over time. It uses cross-tabulations and frequency distributions to ascertain the general trends in individual tax compliance. It analyzes tax compliance in general by threshold. Particular emphasis is placed on changes in tax compliance by year and demographic and socioeconomic factors, province/territory, marginal tax rates, and filing methods. It begins with filing compliance, followed by reporting compliance, and finally by payment compliance since individual taxpayers are required to file, report, and pay any taxes owing. It uses percentages to discuss general trends in filing, reporting, and payment compliance in this section. Frequency counts for Tables 1 to 9 in this section are shown in Appendix B.

## **Tax Compliance in General**

The general trend in tax compliance (filing, reporting, and payment) over the 7-year period is shown in Table 1, and also in Figure 1. Appendix C

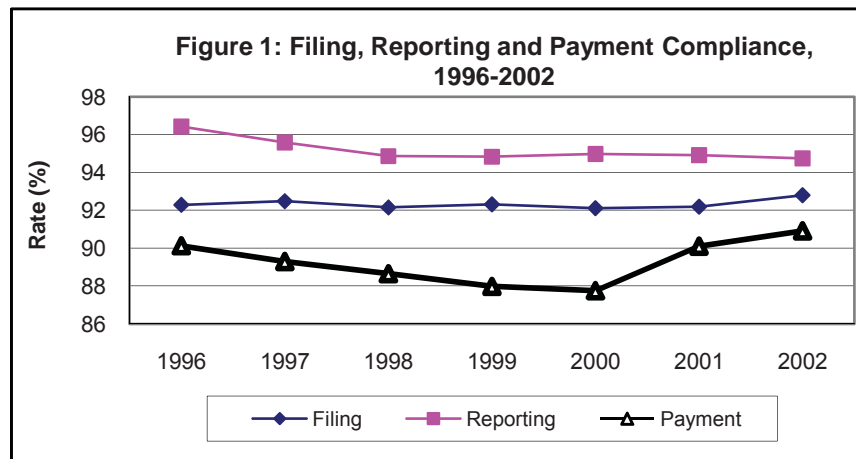
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<sup>13</sup> This provides a “balanced panel” for the analysis. Exit and entry of tax filers during the study period generate an “unbalanced panel” dataset, which is not discussed in this study.

reports Chi-Square test results for association and Cramer's V statistic for the strength of the association for cross-tabulations of all tables in this section.

**Table 1: Tax Compliance in General (%), 1996-2002**

	1996	1997	1998	1999	2000	2001	2002
Filing	92.29	92.48	92.15	92.31	92.11	92.19	92.80
Reporting	96.43	95.59	94.86	94.83	94.98	94.91	94.74
Payment	90.13	89.30	88.65	87.98	87.75	90.11	90.92



### Filing Behavior

The filing compliance rate has been consistent at 92 percent for the entire period. This implies there has been no significant increase in the risk associated with late filing. However, it is relevant to allocate agency resources to improve filing compliance, given that about 8 percent of Canadian taxpayers did not file their tax returns on time during the 7-year period.

### Reporting Behavior

The reporting compliance rate decreased throughout the study period from 96 percent in 1996 to 95 percent in 2002. The reporting compliance rate is generally quite high compared to the filing compliance and payment compliance rates. It is worth noting that the reporting compliance rate is much dependent on the threshold amount (in this study less than or equal to \$50 of the difference between calculated tax payable and reported tax payable). If the threshold is increased, the reporting compliance rate might increase.

## Payment Behavior

Canadian taxpayers were slow to pay their taxes owing during the study period. The payment compliance rate decreased from 90 percent in 1996 to 88 percent in 2000. There was an improvement in the payment compliance rate for 2001 and 2002. The agency might consider programs that aim at educating taxpayers in the importance of paying their taxes on time. This could decrease future resources allocated by the agency to collect taxes owing and also save noncompliant taxpayers extra penalties for not paying taxes on time.

## Tax Compliance by Demographic Group

This section provides a detailed analysis of the tax compliance behavior (filing, reporting, and payment) of Canadian taxpayers from 1992 to 2002 for selected demographic variables.

### Gender

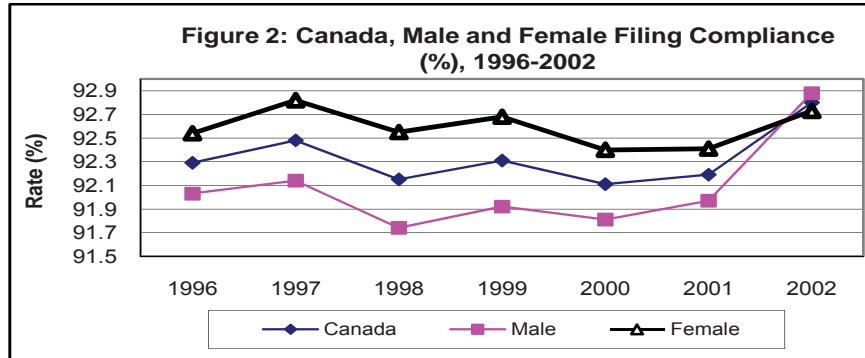
The tax compliance rate (filing, reporting, and payment) by gender is shown in Table 2.

**Table 2: Tax Compliance by Gender (%), 1996-2002**

	1996	1997	1998	1999	2000	2001	2002
Male							
Filing	92.03	92.14	91.74	91.92	91.81	91.97	92.88
Reporting	95.79	94.95	94.24	94.24	94.48	94.21	94.06
Payment	88.01	86.98	86.16	85.38	85.23	87.89	88.88
Female							
Filing	92.54	92.82	92.55	95.68	92.40	92.41	92.73
Reporting	97.04	96.21	95.46	95.40	95.46	95.59	95.39
Payment	92.18	91.55	91.06	90.50	90.20	92.27	92.90

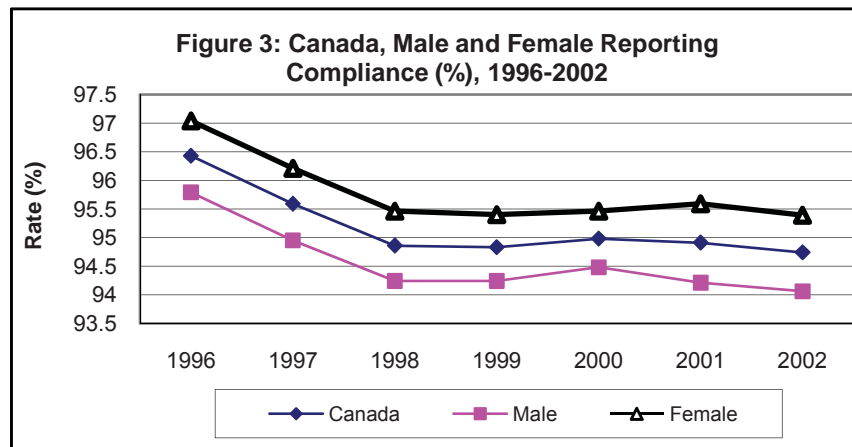
### Filing Behavior

The gender filing compliance rate is very similar to the general filing compliance rate. The female filing compliance rate has exceeded the rate for male taxpayers for every year of the study period except 2002. This observation is consistent with the tax compliance literature (Baldry, 1987; Torgler and Schneider, 2004). This finding might imply that male taxpayers are less risk averse than female taxpayers. Figure 2 shows the filing compliance rates for Canadian, male and female taxpayers over the study period.



### Reporting Behavior

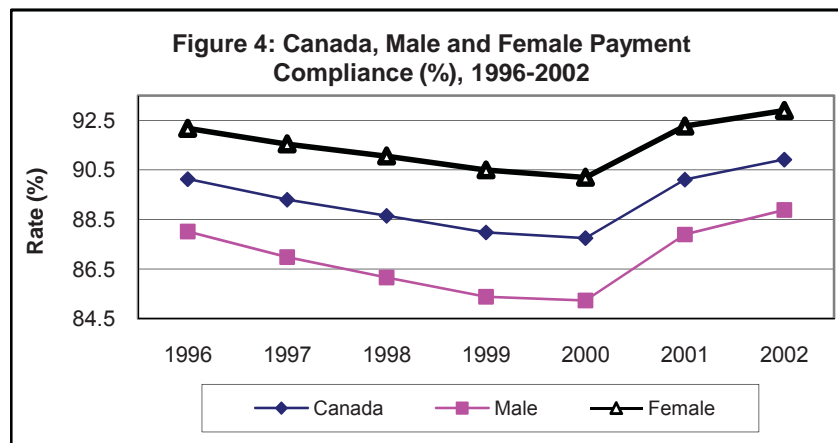
Female taxpayers have consistently outperformed male taxpayers in terms of reporting their taxes owing over the study period. Again, this observation is supported by the existing tax compliance literature. Baldry (1987) finds that males tend to evade more than females do. A comparison of Canadian, male and female reporting compliance is shown in Figure 3. It is interesting to note that females often file for credits (e.g., GST and Child Tax Benefit). They may have little or no reported income, and hence may not be taxable. Another area of interest is refund returns, that is, tax returns that have refunds. Are females more likely to file refund returns than males? This issue is beyond the scope of the present study and may be an area for further research. Recall that the dataset includes all taxpayers who consistently filed their taxes for all 7 years, whether they have tax payable or not, and whether they receive tax refunds or not.





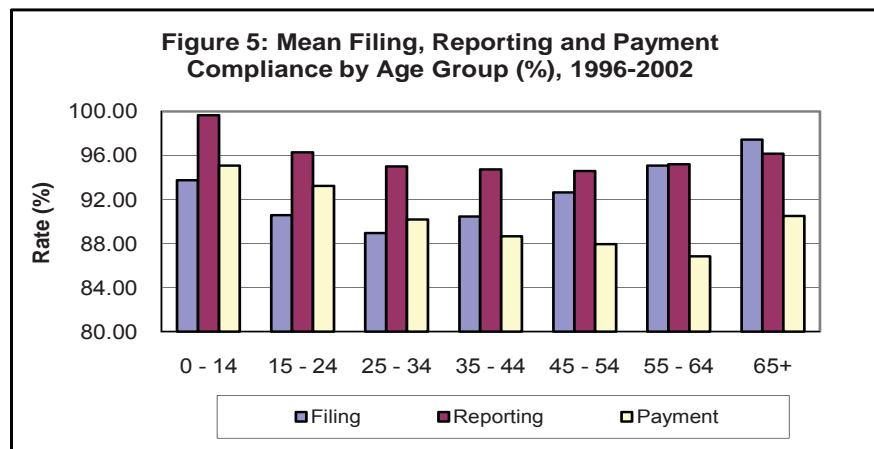
### Payment Behavior

The payment compliance rate has generally been lower for both female and male taxpayers compared to filing and reporting compliance rates. As with filing and reporting compliance, female payment compliance is higher than male payment compliance for all years under consideration. Unfortunately, the database does not have variables to explain the differential between female and male taxpayers with regard to payment compliance. Figure 4 compares the Canadian, male and female payment compliance.



### Age Group

The tax compliance rate (filing, reporting, and payment) by age group is shown in Table 3, and the mean tax compliance rate from 1996 to 2002 is shown in Figure 5.



**Table 3: Tax Compliance, by Age Group (%), 1996-2002**

	Year	Age Group (Years)						
		0-14	15-24	25-34	35-44	45-54	55-64	65+
Filing	1996	89.78	89.88	89.48	91.20	93.00	95.18	97.59
	1997	93.87	90.88	89.31	90.98	92.95	95.32	97.84
	1998	94.31	90.51	88.59	90.33	92.50	95.06	97.86
	1999	95.18	90.51	88.56	90.40	92.67	95.10	97.71
	2000	94.16	90.17	88.29	89.89	92.38	94.98	97.42
	2001	94.36	90.47	88.58	89.86	92.27	94.87	97.05
	2002	94.57	91.62	89.91	90.56	92.72	95.08	96.66
	Mean	93.75	90.53	88.96	90.46	92.64	95.08	97.45
Reporting	1996	99.67	97.97	96.55	96.27	95.78	95.77	96.45
	1997	99.70	96.84	95.54	95.28	95.05	95.42	96.07
	1998	99.65	95.97	94.78	94.48	94.15	94.96	95.69
	1999	99.63	95.58	94.52	94.31	94.25	95.17	96.03
	2000	99.61	95.73	94.73	94.53	94.46	95.24	96.02
	2001	99.55	96.23	94.72	94.28	94.24	94.89	96.41
	2002	99.71	95.75	94.27	93.98	94.13	95.02	96.40
	Mean	99.65	96.30	95.02	94.73	94.58	95.21	96.15
Payment	1996	96.09	94.82	90.83	89.36	88.33	87.46	90.54
	1997	96.67	93.52	89.81	88.59	87.78	86.77	90.54
	1998	94.90	93.18	89.60	88.03	87.19	85.85	89.69
	1999	90.92	92.25	89.03	87.48	86.72	85.23	89.17
	2000	95.13	91.74	88.89	87.14	86.49	85.38	89.23
	2001	95.83	93.10	91.03	89.54	89.10	88.36	91.73
	2002	95.98	94.07	92.15	90.50	89.95	88.85	92.53
	Mean	95.07	93.24	90.19	88.66	87.94	86.84	90.50

### Filing Behavior

Tax filers over 55 have a relatively higher filing compliance rate than other age cohorts. This observation is consistent with the tax compliance literature. Older people are more likely to be risk averse than younger people. Also, older people may have acquired more social capital and be more strongly attached to their communities. Older people have a stronger dependency on others' reactions, which may act as a restriction imposing higher potential social costs of sanctions (Torgler et al., 2004).

### Reporting Behavior

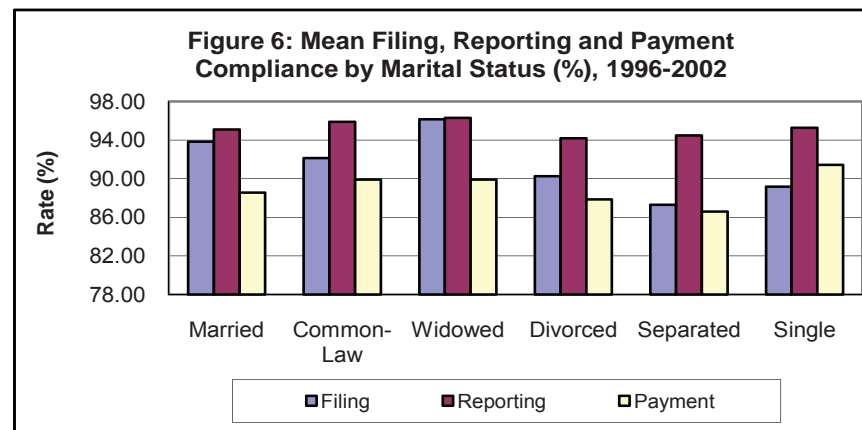
The younger age group (under 25 years) and the older age group (over 54 years) show a higher reporting compliance rate. This might be due to the fact that younger taxpayers have less complex tax situations and much less earned and reportable income, while older taxpayers might have a broader understanding of their tax obligations. The implied risk aversion of older taxpayers is also important in this case.

### Payment Behaviour

Younger taxpayers (under 25 years) have a higher payment compliance rate than middle aged and older taxpayers. This might be due to the fact that there are relatively few of them, most may not have taxable income, and many file credit returns so that there are less instances of arrears or installment interest. The younger cohorts have less financial obligations and are thus able to pay their taxes owing relative to middle-aged and older taxpayers. Financial difficulties might limit the ability of middle-aged and older taxpayers to make good on their taxes owing, all other things being the same. In other words, the risk of middle-aged and older taxpayers not being able to honor their tax payment obligations is relatively higher than for younger taxpayers. CRA programs that aim to educate middle-aged and older taxpayers on the necessity of paying their taxes owing would be a step in the right direction.

### Marital Status

The tax compliance rate (filing, reporting, and payment) by marital status is shown in Table 4, and the mean tax compliance rate is shown in Figure 6.



**Table 4: Tax Compliance, by Marital Status (%), 1996-2002**

	Year	Marital Status					
		Married	Common-Law	Widowed	Divorced	Separated	Single
Filing	1996	94.07	91.62	96.37	90.16	87.45	89.18
	1997	94.12	91.90	96.54	90.20	87.40	89.52
	1998	93.74	91.89	96.61	89.94	86.89	88.92
	1999	93.90	92.23	96.45	90.10	86.98	88.89
	2000	93.62	92.10	96.08	90.02	86.82	88.70
	2001	93.66	92.36	95.68	90.14	86.96	88.76
	2002	93.84	92.92	95.29	91.17	88.48	90.34
	Mean	93.85	92.15	96.15	90.25	87.28	89.19
Reporting	1996	96.28	96.99	96.69	95.60	95.95	96.85
	1997	95.53	96.22	96.27	94.64	94.88	95.77
	1998	94.83	95.77	95.72	93.75	94.20	94.88
	1999	94.84	95.69	95.99	93.76	93.98	94.65
	2000	94.92	95.91	96.21	93.95	94.32	94.88
	2001	94.78	95.37	96.54	93.91	94.07	95.04
	2002	94.59	95.20	96.66	93.72	93.92	94.75
	Mean	95.11	95.88	96.30	94.19	94.47	95.26
Payment	1996	89.25	90.59	89.67	88.27	87.43	92.70
	1997	88.59	89.74	89.84	87.32	86.36	91.54
	1998	87.84	89.33	89.08	86.89	85.98	91.09
	1999	87.11	88.81	88.72	86.81	85.55	90.38
	2000	87.07	88.47	88.80	86.44	85.00	89.85
	2001	89.56	90.85	91.42	89.21	87.38	91.73
	2002	90.39	91.48	91.83	90.10	88.47	92.66
	Mean	88.54	89.90	89.91	87.86	86.60	91.42

### Filing Behavior

Widowed taxpayers have the highest filing compliance rate among the various marital statuses. Married and common-law taxpayers have the next highest filing compliance rate. The filing compliance rate for married couples is contrary to the Taxpayer Compliance Measurement Program (TCMP) data,

which indicate that noncompliance is more common and of greater magnitude among households in which the head is married. Separated and single taxpayers have relatively lower filing compliance rates.

### Reporting Behavior

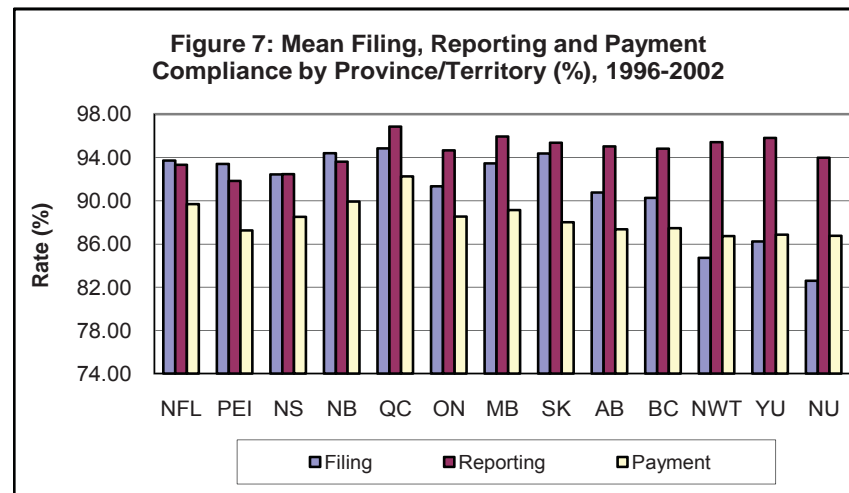
The reporting compliance rate is quite similar among the various marital statuses, with the highest rate registered by widowed taxpayers. Divorced and separated taxpayers, however, tend to have the lowest reporting compliance rate.

### Payment Behavior

Single taxpayers are more likely to pay their taxes owing compared to the other marital groups. Financial constraints might impact the ability of divorced, separated, and married taxpayers to make good on their taxes owing, all other things being the same.

### Province/Territory

The tax compliance rate (filing, reporting, and payment) by province/territory is shown in Table 5, and the mean tax compliance rate is shown in Figure 7.



**Table 5: Tax Compliance by Province/Territory (%), 1996-2002**

	Yr.	Province/Territory												
		NFL	PEI	NS	NB	QC	ON	MB	SK	AB	BC	NWT	YU	NU
Filing	1996	92.36	93.93	92.65	94.48	94.17	91.74	93.04	94.27	90.59	90.30	82.75	85.91	-
	1997	93.99	93.57	92.46	94.26	94.56	91.85	93.58	94.51	90.81	90.21	84.50	85.48	-
	1998	93.67	93.44	92.37	94.35	94.75	91.13	93.30	94.42	90.43	89.87	84.56	84.82	-
	1999	94.65	93.42	92.86	94.78	95.08	91.26	93.33	94.18	90.14	89.96	84.68	85.93	83.64
	2000	93.89	93.02	92.28	94.38	94.93	90.76	93.33	94.20	90.92	89.98	83.93	86.42	78.83
	2001	93.73	93.12	92.08	94.06	95.00	90.89	93.51	94.30	90.68	90.36	85.14	86.59	81.69
	2002	93.65	93.19	92.25	94.48	95.39	91.68	93.98	94.60	91.60	91.04	87.39	88.40	86.20
	Mean	93.71	93.38	92.42	94.40	94.84	91.33	93.44	94.35	90.74	90.25	84.71	86.22	82.59
Reporting	1996	96.73	96.46	95.53	96.94	97.43	95.97	96.30	96.23	96.50	95.89	95.61	96.43	-
	1997	94.93	93.54	93.78	94.97	96.86	95.19	96.15	95.56	95.31	95.10	94.81	95.69	-
	1998	93.23	91.09	91.72	93.30	96.62	94.38	95.89	94.91	94.56	94.20	94.54	95.48	-
	1999	92.44	90.04	91.47	92.76	96.66	94.23	95.85	94.87	94.44	94.71	95.32	95.72	93.46
	2000	92.03	90.55	91.61	92.67	97.06	94.31	95.71	95.11	94.82	94.58	95.76	95.84	93.77
	2001	92.37	90.97	91.73	92.66	96.57	94.32	95.96	95.64	94.98	94.62	96.01	95.70	93.99
	2002	91.55	90.04	91.24	92.00	96.66	94.10	95.72	95.11	94.57	94.59	95.79	95.69	94.62
	Mean	93.33	91.81	92.44	93.61	96.84	94.64	95.94	95.35	95.03	94.81	95.41	95.79	93.96
Payment	1996	90.65	88.54	89.58	90.97	92.65	89.58	90.23	89.04	88.34	88.31	85.87	85.09	-
	1997	89.54	86.93	88.37	89.62	92.16	88.95	88.99	87.70	86.83	87.23	87.58	87.54	-
	1998	88.27	86.40	87.95	88.96	91.67	88.19	88.52	87.03	86.34	86.48	85.86	86.91	-
	1999	88.61	86.05	87.88	89.34	91.34	86.95	88.08	86.52	86.12	85.85	86.07	86.24	85.76
	2000	89.01	86.00	87.21	88.53	90.95	86.81	87.35	86.94	85.72	85.97	84.78	85.65	86.18
	2001	90.89	88.26	89.38	91.02	93.30	89.05	89.64	88.96	88.13	88.86	86.76	87.83	86.34
	2002	90.70	88.49	89.20	91.00	93.64	90.10	91.07	89.89	89.94	89.49	90.13	88.65	88.66
	Mean	89.67	87.24	88.51	89.92	92.24	88.52	89.13	88.01	87.35	87.46	86.72	86.84	86.74

### Filing Behavior

New Brunswick, Quebec, and Saskatchewan have the highest filing compliance rate among the provinces. Ontario, Alberta, and British Columbia have similar levels of filing compliance, which is lower than the Atlantic Provinces. The territories consisting of Northwest Territories, Yukon, and Nunavut are the least compliant when it comes to filing tax returns.

### Reporting Behavior

Reporting compliance rates are similar among the provinces, though some provinces come ahead of others. Quebec and Manitoba show the highest level of reporting compliance. This is closely followed by Yukon, Northwest Territories, Saskatchewan, Alberta, Ontario, and British Columbia as a group. The Atlantic Provinces have the lowest reporting compliance rate among the provinces. There seems to be no clear reason for the observed reporting compliance behavior.

### **Payment Behavior**

When it comes to paying taxes owing, the provinces/territories seem to be on the same page, except that Quebec comes ahead. Quebec has consistently outpaced all the provinces with regard to making good on tax obligations. The database does not have variables that are able to explain observed payment compliance behavior at the provincial/territorial level.

### **Tax Compliance by Socioeconomic Group**

This section presents evidence on tax compliance for income level, tax rates, and major source of income. The theoretical models of taxpayer compliance literature indicate that, as income rises, tax evasion should increase over most ranges (Andreoni et al., 1998). Empirical studies, though, indicate mixed results on the correlation between taxpayer noncompliance and increases in income (Clotfelter, 1983; Joulfaian and Rider, 1996; Pommerrehne and Frey, 1992; Feinstein, 1991). Compliance rates also appear to differ across occupations and/or the source of income. The tax compliance literature argues that self-employed taxpayers evade more taxes than salaried employees. The lack of third party information reporting for self-employed taxpayers tends to increase the opportunity to evade taxes.

### **Taxable Income**

Taxpayers are categorized into three income groups: low-income for taxpayers earning less than or equal to \$35,000 annual taxable income; middle-income for taxpayers whose earnings are greater than \$35,000 and less than or equal to \$113,804 annual taxable income; and high-income for taxpayers whose earnings are greater than \$113,804 annual taxable income. These income ranges are based on the 2004 Federal Schedule 1 taxable income.<sup>14</sup> The tax compliance rate (filing, reporting, and payment) by taxable income is shown in Table 6, and the mean tax compliance rate for the various taxable income groups as shown in Figure 8.

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<sup>14</sup> The taxable income is normalized by the annual inflation rate (consumer price index) to convert it into real taxable income. This ensures that taxpayers who move from one tax bracket to another do not invalidate the results/conclusions of the analysis.

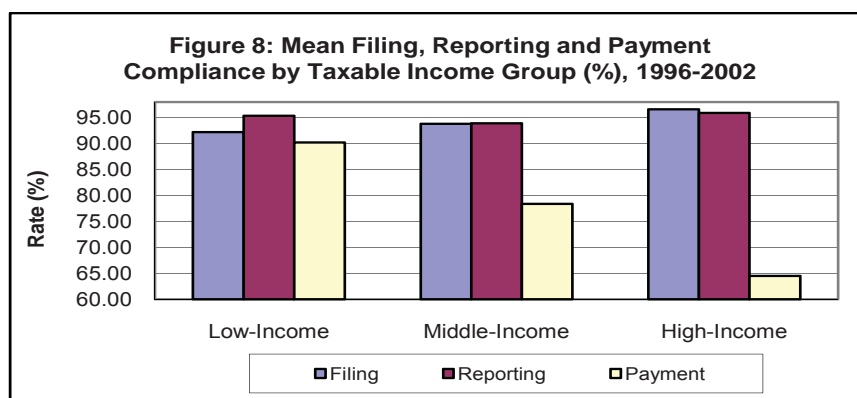
**Table 6: Tax Compliance by Taxable Income Group (%), 1996-2002**

	Year	Taxable Income Group (2004)		
		Low (\$35,000 or less)	Middle (More than \$35,000 but not more than \$113,804)	High (More than \$113,804)
Filing	1996	92.14	94.25	96.70
	1997	92.36	93.87	96.64
	1998	91.67	93.12	95.26
	1999	92.20	93.35	96.73
	2000	92.05	94.16	97.05
	2001	92.13	93.99	96.68
	2002	92.73	93.85	97.10
	Mean	92.18	93.80	96.59
Reporting	1996	96.57	94.26	95.84
	1997	95.72	93.94	95.94
	1998	95.71	92.81	95.47
	1999	94.95	93.19	96.41
	2000	94.97	95.03	95.65
	2001	94.93	94.24	95.72
	2002	94.78	93.74	96.22
	Mean	95.38	93.89	95.89
Payment	1996	90.89	80.05	63.72
	1997	90.10	80.32	64.22
	1998	91.01	84.13	67.44
	1999	88.92	77.95	61.28
	2000	88.25	70.14	61.00
	2001	90.61	75.78	65.35
	2002	91.58	80.39	68.22
	Mean	90.19	78.39	64.48

### Filing Behavior

A glance at Table 6 indicates some correlation between the willingness of taxpayers to file their taxes and income. High-income taxpayers have a higher propensity to file their taxes than middle- and low-income taxpayers. Low-income taxpayers have a consistently lower filing compliance rate over the entire study period.





### Reporting Behavior

Even though low-income taxpayers have the lowest compliance rate when it comes to filing their taxes, their reporting compliance behavior is on par with high-income taxpayers. Thus, low-income taxpayers filing their tax returns on time do report correctly their taxes owing. This might be due to the fact that low-income taxpayers have less complex tax situations and are thus able to report accurately their incomes and taxes. Middle-income taxpayers do not do well when it comes to reporting their taxes owing relative to other income groups.

### Payment Behavior

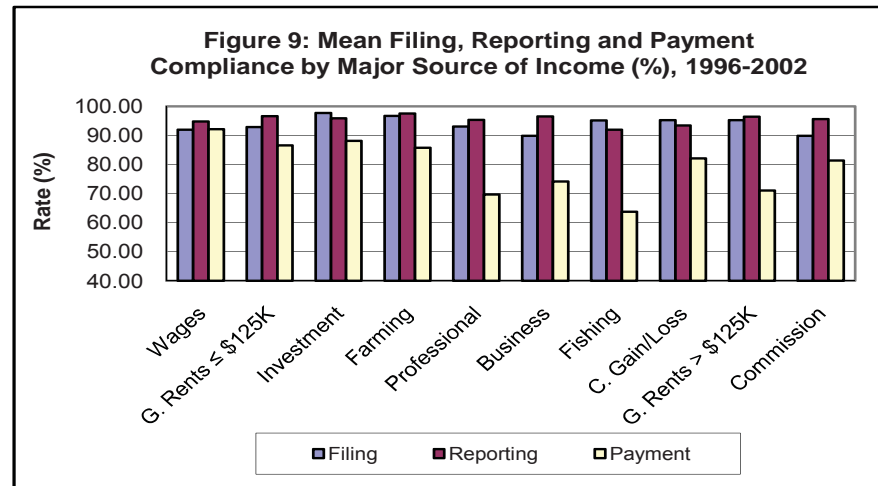
Contrary to filing compliance behavior, payment compliance falls with income, all other things being the same. Low-income taxpayers consistently show higher willingness to pay their taxes owing compared to the middle- and high-income taxpayers. In other words, high-income taxpayers may have a higher risk of not paying their taxes owing. It might be due to the fact that high-income taxpayers have higher tax obligations, and thus their unwillingness to make these payments. Since high-income taxpayers are about 2 percent of taxpayers, the agency might design programs that target this group to increase payment compliance.

### Major Source of Income

The tax compliance rate (filing, reporting, and payment) by major source of income is shown in Table 7, and the mean filing, reporting, and payment compliance is shown in Figure 9.

Table 7: Tax Compliance by Major Source of Income (%), 1996-2002

	Year	Major Source of Income									
		Wage Earners	Gross rents up to \$125,000	Investment Inc. over \$3,000	Farming	Profess- ional	Business	Fishing	Capital Gain/ Losses > \$1,000 or Gross Proceeds > \$25,000	Gross Rents in Excess of \$125,000	Comm- ission
Filing	1996	91.88	93.38	97.98	96.93	92.38	89.68	95.25	95.92	94.44	89.90
	1997	92.24	93.24	98.04	96.71	92.73	89.46	95.08	95.55	94.88	89.79
	1998	91.91	92.78	97.91	96.71	92.28	89.16	95.23	95.22	95.18	89.19
	1999	91.99	92.94	97.82	96.62	92.63	89.40	95.30	95.19	95.50	89.56
	2000	91.71	92.53	97.53	96.65	93.15	89.62	94.94	94.59	95.43	89.35
	2001	91.76	92.64	97.51	96.57	93.36	90.08	94.62	95.09	95.58	89.80
	2002	92.38	92.79	97.30	96.81	94.84	91.89	95.54	95.11	95.82	91.16
	Mean	91.98	92.90	97.73	96.71	93.05	89.90	95.14	95.24	95.26	89.82
Reporting	1996	96.45	96.67	96.04	97.40	95.40	96.62	92.72	94.17	96.10	95.69
	1997	95.36	96.64	96.00	97.36	95.29	96.53	91.78	94.34	96.32	95.56
	1998	94.39	96.62	95.76	97.57	95.44	96.52	92.15	93.55	96.13	95.61
	1999	94.25	96.86	95.92	97.74	95.71	96.71	91.71	93.79	96.79	95.82
	2000	94.51	96.74	95.41	97.66	95.55	96.71	92.69	93.33	96.51	95.77
	2001	94.46	96.43	96.02	97.57	95.03	96.28	91.58	92.42	96.60	95.42
	2002	94.24	96.39	96.25	97.45	95.07	96.10	91.22	92.58	96.63	95.39
	Mean	94.81	96.62	95.91	97.54	95.36	96.50	91.98	93.45	96.44	95.61
Payment	1996	92.69	87.26	97.38	86.93	70.95	77.13	66.79	81.66	74.56	81.63
	1997	91.91	86.94	87.44	86.19	70.25	75.27	66.01	82.43	73.78	80.89
	1998	91.57	85.71	85.86	85.07	68.61	73.42	63.66	81.88	71.35	80.19
	1999	91.20	84.86	84.80	83.80	67.14	71.76	58.67	79.89	68.09	80.18
	2000	90.91	85.03	84.05	85.00	67.80	72.16	60.90	80.41	67.92	79.98
	2001	92.95	87.99	88.28	86.50	71.02	74.72	65.59	83.57	70.62	83.00
	2002	93.80	88.46	89.18	86.67	72.05	74.85	64.30	84.89	71.27	83.70
	Mean	92.15	86.61	88.14	85.74	69.69	74.19	63.70	82.10	71.08	81.37



### Filing Behavior

The major source of income seems to influence filing compliance. Among the self-employed, those receiving business income and commission income have the lowest filing compliance rate. Taxpayers receiving investment income over \$3,000 and farmers show high levels of filing compliance. Capital

gains and/or losses, gross rents in excess of \$125,000, and fishing income have a moderate effect on filing compliance. The general trend for filing compliance is contrary to the observation in the tax compliance literature. Wage earners report a lower filing compliance rate compared to the self-employed (except those receiving commission income) for all the years under study.

### Reporting Behavior

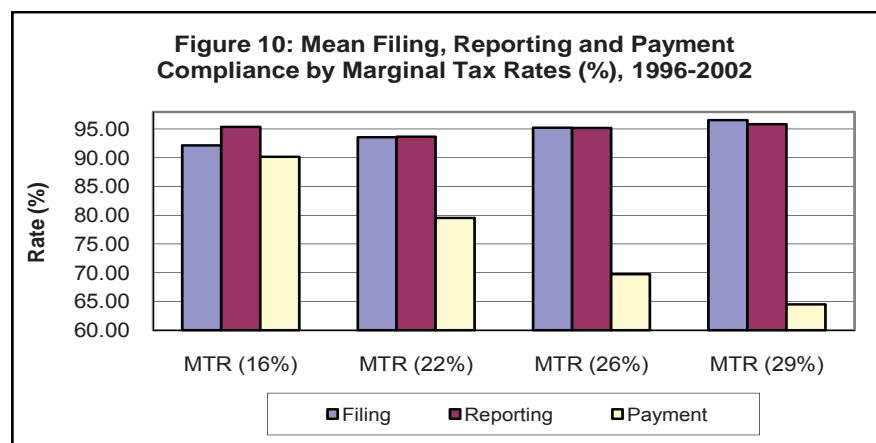
It appears that no significant differences exist among the major sources of income with regard to reporting compliance. Wage earners, fishing, and capital gain/losses, though, show a relatively low reporting compliance among the major sources of income. The low reporting compliance rate of wage earners refutes what the tax compliance literature predicts.

### Payment Behavior

Wage earners do a better job than other major income sources when it comes to payment compliance. This observed behavior might reflect the fact that, for wage earners, taxes are deducted at source, which for most taxpayers reduces the taxes owing at the end of the tax year. Among the self-employed, farming, business, and fishing have a high risk of no payment of taxes owing.

### Tax Compliance by Marginal Tax Rates

The tax compliance rate (filing, reporting, and payment) based on the 2004 Federal Schedule 1 marginal tax brackets is shown in Table 8, and the mean tax compliance rate is shown in Figure 10. The income range for the low marginal tax bracket (16 percent) and the high marginal tax bracket (29



percent) corresponds exactly to the low-income and high-income groups in Table 6; hence, the tax compliance rates are the same. The income range for the middle-income group is now split between the two middle marginal tax brackets (22 percent and 26 percent).

**Table 8: Tax Compliance by Marginal Tax Rates (%), 1996-2002**

	Year	Tax Brackets (2004)			
		Marginal Tax Rate (16)	Marginal Tax Rate (22%)	Marginal Tax Rate (26%)	Marginal Tax Rate (29%)
Filing	1996	92.14	34.11	95.67	96.70
	1997	92.36	93.70	95.47	96.64
	1998	91.67	93.15	92.93	95.26
	1999	92.20	93.15	95.12	96.73
	2000	92.05	93.78	96.14	97.05
	2001	92.13	93.66	95.83	96.68
	2002	92.73	93.59	95.69	97.10
	Mean	92.18	93.59	95.26	96.59
Reporting	1996	96.57	94.17	95.14	95.84
	1997	95.72	93.81	95.18	95.94
	1998	95.71	92.77	93.04	95.47
	1999	94.95	92.91	95.66	96.41
	2000	94.97	94.82	96.14	95.65
	2001	94.93	94.02	95.46	95.72
	2002	94.78	93.45	95.76	96.22
	Mean	95.38	93.71	95.20	95.89
Payment	1996	90.89	81.28	67.99	63.72
	1997	90.10	81.51	69.07	64.22
	1998	91.01	84.93	79.34	67.44
	1999	88.92	79.18	67.22	61.28
	2000	88.25	71.37	63.80	61.00
	2001	90.61	77.05	68.75	65.35
	2002	91.58	81.60	72.06	68.33
	Mean	90.19	79.56	69.75	64.48

### Filing Behavior

The filing compliance rates for the low marginal tax bracket (16 percent) and the upper marginal tax bracket (29 percent) are the same as the rates for low-income and high-income taxpayers. The split of the middle-income group into two marginal tax brackets (22 percent and 26 percent) does show some slight differences in filing compliance over the study period, with the 26-percent marginal tax bracket having a higher tax compliance rate. The

filing compliance rate for the two marginal tax brackets is higher than the low marginal tax bracket (16 percent) but lower than the high marginal tax bracket (29 percent). The observed pattern is similar to the filing compliance of the taxable income group.

### **Reporting Behavior**

The middle marginal tax brackets (22 percent and 26 percent) have relatively lower reporting compliance compared to the low marginal tax bracket (16 percent) and the high marginal tax bracket (29 percent). The low marginal tax bracket (16 percent) and the high marginal tax bracket (29 percent) have comparable reporting compliance. This observation is contrary to the general observation in the tax compliance literature that tax evasion should increase with higher marginal tax rates.

### **Payment Behavior**

The split of the middle-income group into two marginal tax brackets (22 percent and 26 percent) does show significant differences in payment compliance over the study period. In general, payment compliance decreases with the marginal tax rate, that is, the higher the marginal tax rate, the lower is the payment compliance, all other things being the same. It can be conjectured that taxpayers in the high marginal tax bracket have a higher tax burden relative to the other tax brackets, and this might constrain their ability to make good on tax obligations.

## **Tax Compliance by Filing Methods**

The Canada Revenue Agency provides some programs that encourage taxpayers to file, report, and pay their taxes.<sup>15</sup> This section considers how the various filing methods influence taxpayers' compliance with tax laws.<sup>16</sup>

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<sup>15</sup> Among these programs are the Voluntary Disclosures Program (VDP) and the Community Volunteer Income Tax Program (CVITP).

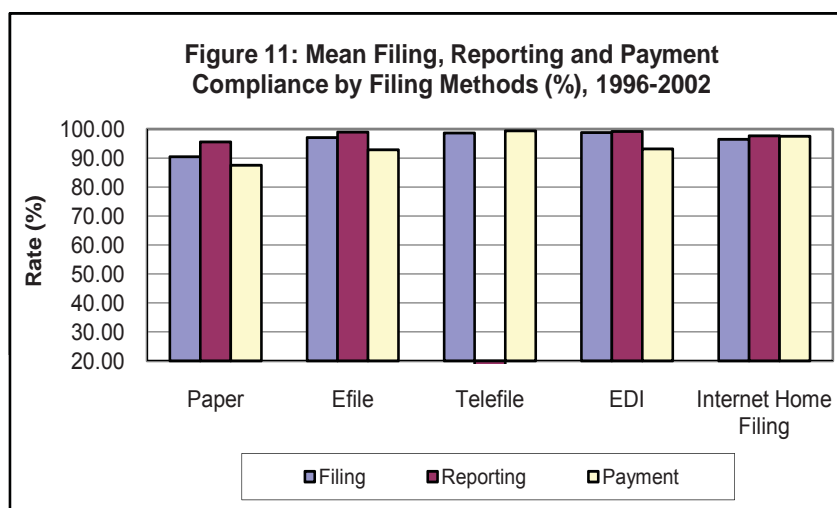
<sup>16</sup> The Canada Revenue Agency (CRA) provides four main methods for taxpayers to file their income tax returns. These are the paper (hardcopy) and the electronic methods (Efile, Telefile, and Netfile). Efile is an electronic service that allows registered tax professionals to send current-year individual tax returns to CRA over the Internet. Telefile is an interactive computer program that allows eligible taxpayers (those with most common types of income tax information such as employment income, pension income, interest income, registered pension plan contributions, and charitable donations) to electronically file their tax returns for free using a touch-tone telephone. Netfile allows taxpayers to file their income tax and benefit returns directly to CRA using the Internet. Netfile is intended for individuals who use commercial software to manage their financial affairs and prepare their tax returns. Netfile is available to most Canadians, but there are some types of tax returns that cannot be submitted electronically using Netfile.

## Filing Methods

The filing methods available to taxpayers are paper (hard copy), electronic filing (Efile), telephone filing (Telefile), electronic data interchange (EDI), and Internet home filing. The tax compliance rate (filing, reporting, and payment) by filing method is shown in Table 9, and the mean filing, reporting, and payment compliance is shown in Figure 11.

**Table 9: Tax Compliance by Filing Methods (%), 1996-2002**

	Year	Filing Method				
		Paper Filing (Hardcopy)	Electronic Filing (EFILE)	Telephone Filing (TELEFILE)	Electronic Data interchange (ED/EFILE)	Internet Home Filing
Filing	1996	90.76	98.41	100.00	99.22	—
	1997	90.66	98.80	100.00	98.94	—
	1998	90.53	96.76	100.00	98.91	94.16
	1999	90.52	96.60	100.00	98.92	97.64
	2000	90.03	96.28	96.74	98.45	97.04
	2001	89.64	96.36	96.59	98.13	97.54
	2002	90.76	96.26	97.23	—	95.92
	Mean	90.41	97.07	98.66	98.76	96.46
Reporting	1996	95.75	99.15	—	99.22	—
	1997	95.69	99.05	—	99.09	—
	1998	95.42	99.02	—	99.08	98.30
	1999	95.82	98.91	—	98.97	97.63
	2000	95.84	98.82	—	98.89	97.74
	2001	95.29	98.82	—	99.86	97.40
	2002	95.23	98.71	—	—	97.53
	Mean	95.58	98.93	—	99.19	97.67
Payment	1996	89.07	94.29	99.98	95.96	—
	1997	87.92	93.71	99.50	94.74	—
	1998	87.28	92.21	99.33	93.56	99.51
	1999	86.67	90.14	99.22	91.54	96.25
	2000	85.15	92.23	99.10	91.00	96.97
	2001	87.68	93.45	99.23	91.94	97.15
	2002	88.60	94.17	99.35	—	97.62
	Mean	87.48	92.89	99.39	93.12	97.50



### Filing Behavior

Taxpayers using the paper method do perform poorly when it comes to filing their taxes. The electronic methods, on the other hand, have a superior filing compliance record. The agency needs to provide more incentives to taxpayers through outreach programs (e.g., Community Volunteer Income Tax Program) in order to increase filing compliance. Educating taxpayers to use the electronic filing methods should be encouraged. The agency might consider strategies to reduce the monetary costs of using the electronic methods in order to encourage more taxpayers to them in filing their tax returns.

### Reporting Behavior

Taxpayers using the electronic methods have a relatively higher reporting compliance rate than those using the paper method, though Telefile has an exceptionally low reporting compliance rate. This is due to the fact that taxpayers using telephone filing are not required to report their total tax payable. Unlike the paper method, the electronic methods have inbuilt mechanisms to control for simple arithmetic errors, which might not be self-correcting with the paper method. Some of the tax noncompliance rate for the paper filing method might be due to genuine arithmetic errors and not intentional, which is difficult to isolate in the database.

### Payment Behavior

The paper method shows lower payment compliance relative to the electronic methods. The reason for this observed behavior among taxpayers is not clear.

### Multivariate Analysis

The preceding section provided an overview of the tax compliance rates for filing, reporting, and payment. The focus has been frequency counts (percentages) of the number of taxpayers with regard to filing, reporting, and payment tax compliance, but does not provide statistical relationships between the various compliance rates and the relevant variables. This section is an attempt to provide empirical evidence for observed tax compliance rates from 1996 to 2002. That is, the objective here is to identify any statistical relationships and/or significance between the various measures of tax compliance and the relevant variables. Statistical tests of significance are carried out to identify factors that influence tax compliance. Appendix D lists the dummy variable descriptions of all variables used in the analysis, and Appendix E describes the multivariate process (logistic regression) in some detail.

### Results of the Logistic Regression Estimates

This section presents logistic regression estimates for the factors likely to influence filing, reporting, and payment tax compliance over the study period. The next subsection discusses factors influencing filing tax compliance, reporting tax compliance, and payment tax compliance.

### Filing Compliance Behavior

The odds ratio estimates for filing compliance are shown in Table 10, and the interpretation of the odds ratios is provided in Table 11.<sup>17</sup>

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<sup>17</sup> The Odds ratio indicates how much more likely, with respect to odds, a certain event occurs in one group relative to its occurrence in another group. For example, how much more likely are females (reference category) to be filing compliant compared to males? The odds ratio shows the strength of the association between the independent variable and the dependent variable. If the odds ratio is 1, then there is no association between the independent variable and the dependent variable. If the odds ratio is greater than 1, then females (e.g., dummy variable for gender in this study: female = 0 and males = 1) are more likely to be filing compliant than males. If the odds ratio is less than 1, then males are less likely to be filing compliant than females. In Table 10, the odds ratio for gender is 0.888, which implies males are roughly 11 percent less likely to be filing compliant relative to females, all other things being the same.



**Table 10: Filing Compliance – Odds Ratio Estimates**

Parameters		Point Estimate	95% Wald Confidence Intervals
<b>Demographic Factors</b>			
Gender	Male vs. Female	0.888	0.887 – 0.889
Age Group	Middle vs. Young	1.083	1.081 – 1.085
	Old vs. Young	2.061	2.055 – 2.067
Marital Status	Widowed vs. Married/CL	0.743	0.740 – 0.746
	Divorced vs. Married/CL	0.613	0.611 – 0.615
	Separated vs. Married/CL	0.545	0.544 – 0.547
	Single vs. Married/CL	0.726	0.725 – 0.727
Region	Quebec vs. Atlantic	1.488	1.483 – 1.492
	Ontario vs. Atlantic	0.692	0.690 – 0.694
	Prairies vs. Atlantic	0.783	0.781 – 0.785
	Pacific vs. Atlantic	0.625	0.623 – 0.627
	Non-Residents vs. Atlantic	0.185	0.182 – 0.187
<b>Income Factors</b>			
Pension Income	Pension vs. No Pension	2.096	2.089 – 2.103
RRSP Income	Income vs. No Income	0.818	0.816 – 0.820
Tax-Exempt Income	Exempt vs. No Exempt	0.808	0.806 – 0.809
Main Source of Income	Investment/Rent vs. Wages	1.291	1.288 – 1.295
	Capital Gains/Loss vs. Wages	1.321	1.293 – 1.350
	Self-Employed vs. Wages	0.979	0.977 – 0.981
<b>Deduction Factors</b>			
Child Care Expenses	Expenses vs. No Expenses	1.033	1.030 – 1.036
RPP Deduction	Deduction vs. No Deduction	1.122	1.120 – 1.124
RRSP Deduction	Deduction vs. No Deduction	1.785	1.782 – 1.788
Exploration & Devt. Expenses	Expenses vs. No Expenses	1.381	1.356 – 1.405
<b>CRA Program Factors</b>			
Voluntary Program Preparer	Participant vs. Non-Participant	1.508	1.493 – 1.524
Tax Preparer Services	Preparer vs. No Preparer	0.692	0.691 – 0.693
Filing Method	EFILE vs. Paper	4.858	4.846 – 4.870
	TELEFILE vs. Paper	7.030	6.961 – 7.099
	NETFILE vs. Paper	3.040	3.024 – 3.056
Marginal Tax Rates (%)	22% bracket vs. 16% bracket	1.055	1.052 – 1.058
	26% bracket vs. 16% bracket	1.160	1.152 – 1.168
	29% bracket vs. 16% bracket	1.851	1.828 – 1.874
Notes:			
<ul style="list-style-type: none"> <li>• N = 128,103,395</li> <li>• Nagalkerke R<sup>2</sup> (Max-rescaled R-Square) = 0.1103</li> <li>• All coefficients in the logistic regression have a statistical significance level of 0.0001.</li> </ul>			

## Demographic Factors

The logistic regression estimates for the demographic factors are mixed, with some factors having positive or adverse influence on filing compliance. Estimates of the filing behavior of females are consistent with the general filing compliance rate. Females are more likely to be filing compliant relative to males. The odds ratio indicates that males are 11 percent more likely to file their taxes late compared to females. This is consistent with the conventional wisdom that females tend to be more risk averse than males.

Compared to young (14–34 years) taxpayers, middle-aged (35–54 years) taxpayers are 8 percent less likely to file their taxes late, while older

**Table 11: Filing Compliance – Interpretation of the Odds Ratio Estimates\***

Parameters		Filing Compliance Outcome	
Demographic Factors		Less Likely to File Late	More Likely to File Late
Gender	Male vs. Female		11%
Age Group	Middle vs. Young	8%	
	Old vs. Young	106%	
Marital Status	Widowed vs. Married/CL		26%
	Divorced vs. Married/CL		39%
	Separated vs. Married/CL		45%
	Single vs. Married/CL		27%
Region	Quebec vs. Atlantic	48%	
	Ontario vs. Atlantic		31%
	Prairies vs. Atlantic		22%
	Pacific vs. Atlantic		38%
	Non-Residents vs. Atlantic		82%
<b>Income Factors</b>			
Pension Income	Pension vs. No Pension	109%	
RRSP Income	Income vs. No Income		18%
Tax-Exempt Income	Exempt vs. No Exempt		20%
Main Source of Income	Investment/Rent vs. Wages	29%	
	Capital Gains/Loss vs. Wages	32%	
	Self-Employed vs. Wages		2%
<b>Deduction Factors</b>			
Child Care Expenses	Expenses vs. No Expenses	3%	
RPP Deduction	Deduction vs. No Deduction	12%	
RRSP Deduction	Deduction vs. No Deduction	78%	
Exploration & Devt. Expenses	Expenses vs. No Expenses	38%	
<b>CRA Program Factors</b>			
Voluntary Program Preparer	Participant vs. Non-Participant	50%	
Tax Preparer Services	Preparer vs. No Preparer		31%
Filing Method	EFILE vs. Paper	385%	
	TELEFILE vs. Paper	603%	
	NETFILE vs. Paper	204%	
Marginal Tax Rates (%)	22% bracket vs. 16% bracket	5%	
	26% bracket vs. 16% bracket	16%	
	29% bracket vs. 16% bracket	85%	

\* All numbers rounded to the nearest whole number

taxpayers (55 years and over) are 106 percent less likely to file their taxes late. This observation is consistent with the frequency distributions. This reinforces the general notion that older people tend to be more risk averse.

Marital status is found to influence filing tax compliance. Compared to married and common-law taxpayers, all other categories of marital status tend to be less filing compliant than those who are married. Specifically, separated taxpayers have the lowest filing compliance rate (45 percent more likely to file late), followed by divorced taxpayers (39 percent more likely to file late).

Quebec Region taxpayers have a significantly higher filing compliance rate compared to all other provinces/territories during the period under study.<sup>18</sup> Quebec Region taxpayers are 48 percent less likely to file their taxes

<sup>18</sup> Tax returns data for Quebec include only the federal tax and do not include taxes paid to the Province of Quebec, while the other provinces/territories include both the federal and Provinces/Territories tax data.

late relative to Atlantic Region (the base category) taxpayers. Non resident taxpayers have the highest likelihood (82 percent) of filing their taxes late.

### **Income Factors**

Similar to demographic factors, income factors also have mixed influence on filing tax compliance. Estimates indicate that taxpayers receiving investment and rent income and capital gains/losses are less likely to file their taxes late (29 percent and 32 percent, respectively) than wage earners. On the other hand, the self-employed are more likely to file their taxes late (2 percent) compared to wage earners.

Taxpayers receiving Registered Pension Plan (RPP) income are 109 percent less likely to file their taxes late, while those receiving Registered Retirement Savings Plan (RRSP) income are 18 percent more likely to file their taxes late compared to taxpayers who do not receive pension and RRSP income. This pattern reiterates the general finding in the tax compliance literature. Older people are more risk averse than the young who tend to be more risk taking.

Taxpayers receiving tax-exempt income (workers' compensation benefits, social assistance payments, and net federal supplements) generally do not file their taxes on time. Specifically, tax-exempt earners are 20 percent more likely to file their taxes late compared to taxpayers who do not receive tax-exempt income.

### **Deduction Factors**

Taxpayers claiming certain deductions are generally less likely to file their taxes late. There seems to be not much of a difference between taxpayers who claimed deductions for childcare expenses and those who do not. Taxpayers claiming childcare expenses are 3 percent less likely to file their taxes late compared to those who do not claim childcare expenses.

Taxpayers claiming RPP deduction are 11 percent less likely to file their taxes late, while those claiming RRSP deduction are 78 percent less likely to file their taxes late compared to taxpayers who do not claim pension and RRSP deductions. Taxpayers who claim exploration and development expenses are quick to file their tax returns. These taxpayers are 38 percent less likely to be filing noncompliant compared to those who do not claim exploration and development expenses.

### **CRA Factors**

Estimates indicate that taxpayers using electronic filing methods (Efile, Telefile, and Netfile) have a significantly higher rate in filing compliance than those using the paper method. Specifically, taxpayers using Efile (385 percent), Telefile (603 percent), and Netfile (204 percent) are less likely to file their taxes late than taxpayers using the paper method. The electronic methods are most attractive to taxpayers expecting to receive a refund since these methods provide instant information on available refunds and balance owing.

Estimates indicate a positive influence of the Community Volunteer Income Tax Program (CVITP) on filing compliance. Taxpayers availing themselves of the program are 50 percent less likely to file their taxes late compared to other taxpayers not using the program. On the other hand, taxpayers using the services of a professional tax preparer are 31 percent more likely to file their taxes late compared to those who do not use tax preparers.

Finally, taxpayers in the lowest marginal tax bracket (16 percent) have a lower filing compliance rate compared to all other marginal tax brackets. Specifically, taxpayers in the 22-percent, 26-percent, and 29-percent marginal tax brackets are 5 percent, 16 percent, and 85 percent less likely to file their taxes late compared to the lowest tax bracket taxpayers (16 percent), respectively.

### **Reporting Compliance Behavior**

This subsection discusses factors that influence reporting tax compliance for the study period, 1996–2002. Table 12 shows the odds ratio estimates, and Table 13 shows the interpretation of the odds ratio estimates.

### **Demographic Factors**

Demographic factors influence tax-reporting compliance over time. Males tend to be less reporting compliant than females. It is not surprising to find that males are 33 percent more likely to underreport their taxes owing compared to females. This observation is consistent with the tax compliance literature (Baldry, 1987; and Torgler and Schneider, 2004). Li (2007) finds that females are 18.9 percent less likely to be reporting noncompliant compared to males, using T1 tax return data for 2002.

Young taxpayers are ahead when it comes to reporting their taxes owing compared to middle-aged and older taxpayers. Again, the observation

**Table 12: Reporting Compliance – Odds Ratio Estimates**

Parameters		Point Estimate	95% Wald Confidence Intervals
<b>Demographic Factors</b>			
Gender	Male vs. Female	0.671	0.670 – 0.672
Age Group	Middle vs. Young	0.874	0.872 – 0.876
	Old vs. Young	0.917	0.914 – 0.921
Marital Status	Widowed vs. Married/CL	0.899	0.895 – 0.903
	Divorced vs. Married/CL	0.747	0.744 – 0.750
	Separated vs. Married/CL	0.714	0.711 – 0.717
	Single vs. Married/CL	0.961	0.959 – 0.964
Region	Quebec vs. Atlantic	1.593	1.587 – 1.598
	Ontario vs. Atlantic	0.916	0.913 – 0.919
	Prairies vs. Atlantic	1.013	1.009 – 1.016
	Pacific vs. Atlantic	0.943	0.940 – 0.947
	Non-Residents vs. Atlantic	0.295	0.289 – 0.301
<b>Income Factors</b>			
Pension Income	Pension vs. No Pension	0.781	0.778 – 0.784
RRSP Income	Income vs. No Income	0.422	0.421 – 0.423
Tax-Exempt Income	Exempt vs. No Exempt	2.780	2.770 – 2.790
Main Source of Income	Investment/Rent vs. Wages	0.974	0.971 – 0.977
	Capital Gains/Loss vs. Wages	0.594	0.583 – 0.605
	Self-Employed vs. Wages	0.833	0.830 – 0.835
<b>Deduction Factors</b>			
Child Care Expenses	Expenses vs. No Expenses	0.929	0.925 – 0.933
RPP Deduction	Deduction vs. No Deduction	0.702	0.700 – 0.704
RRSP Deduction	Deduction vs. No Deduction	0.709	0.707 – 0.710
Exploration & Devt. Expenses	Expenses vs. No Expenses	0.895	0.880 – 0.910
<b>CRA Program Factors</b>			
Voluntary Program Preparer	Participant vs. Non-Participant	1.518	1.491 – 1.545
Tax Preparer Services	Preparer vs. No Preparer	2.510	2.503 – 2.516
Filing Method	EFILE vs. Paper	2.527	2.517 – 2.537
	NETFILE vs. Paper	2.331	2.318 – 2.345
Marginal Tax Rates (%)	22% bracket vs. 16% bracket	0.869	0.866 – 0.871
	26% bracket vs. 16% bracket	0.893	0.886 – 0.900
	29% bracket vs. 16% bracket	0.957	0.945 – 0.968
Notes:			
<ul style="list-style-type: none"> <li>• N = 128,103,395</li> <li>• Nagalkerke R<sup>2</sup> (Max-rescaled R-Square) = 0.2510</li> <li>• All coefficients in the logistic regression have a statistical significance level of 0.0001.</li> </ul>			

here is consistent with the earlier pattern in the first part of this report. Young taxpayers might have simpler tax situations relative to the middle-aged and older age cohorts. Specifically, older taxpayers are 8 percent more likely to underreport their taxes, whereas the middle-aged taxpayers are 13 percent more likely to underreport their taxes owing compared to young taxpayers. The middle-aged cohorts might have more complex tax situations and more financial obligations compared to young and older taxpayers. The fact that older taxpayers are less likely to underreport their taxes compared to middle-aged taxpayers is consistent with the tax compliance literature (Andreoni et al., 1998).

The reporting behavior with regard to marital status is very similar to the pattern in filing behavior. Again, separated taxpayers have the lowest reporting compliance rate (29 percent more likely to underreport their taxes

**Table 13: Reporting Compliance – Interpretation of the Odds Ratio Estimates\***

Parameters		Reporting Compliance Outcome	
		Less Likely to Underreport	More Likely to Underreport
<b>Demographic Factors</b>			
Gender	Male vs. Female		33%
Age Group	Middle vs. Young		13%
	Old vs. Young		8%
Marital Status	Widowed vs. Married/CL		10%
	Divorced vs. Married/CL		25%
	Separated vs. Married/CL		29%
	Single vs. Married/CL		4%
Region	Quebec vs. Atlantic	59%	
	Ontario vs. Atlantic		8%
	Prairies vs. Atlantic	1%	
	Pacific vs. Atlantic		6%
	Non-Residents vs. Atlantic		70%
<b>Income Factors</b>			
Pension Income	Pension vs. No Pension		22%
RRSP Income	Income vs. No Income		58%
Tax-Exempt Income	Exempt vs. No Exempt	178%	
Main Source of Income	Investment/Rent vs. Wages		3%
	Capital Gains/Loss vs. Wages		40%
	Self-Employed vs. Wages		17%
<b>Deduction Factors</b>			
Child Care Expenses	Expenses vs. No Expenses		7%
RPP Deduction	Deduction vs. No Deduction		30%
RRSP Deduction	Deduction vs. No Deduction		29%
Exploration & Devt. Expenses	Expenses vs. No Expenses		11%
<b>CRA Program Factors</b>			
Voluntary Program Preparer	Participant vs. Non-Participant	52%	
Tax Preparer Services	Preparer vs. No Preparer	151%	
Filing Method	EFILE vs. Paper	152%	
	NETFILE vs. Paper	133%	
Marginal Tax Rates (%)	22% bracket vs. 16% bracket		13%
	26% bracket vs. 16% bracket		11%
	29% bracket vs. 16% bracket		4%

\* All numbers rounded to the nearest whole number.

owing); followed by divorced taxpayers (25 percent more likely to underreport their taxes owing) compared to married and common-law taxpayers. For separated and divorce taxpayers, tax complexities in terms of various deductions, credits, and division of assets might influence tax reporting behavior. On the other hand, the Taxpayer Compliance Measurement Program (TCMP) data indicate that noncompliance is more common and of greater magnitude among households in which the head is married (Andreoni et al., 1998).

The observation under filing compliance behavior is mimicked with the reporting compliance. Quebec Region continues to be the province with the highest reporting compliance (59 percent less likely to underreport taxes) compared to taxpayers in the Atlantic Region. Prairies Region taxpayers are 1 percent less likely to underreport taxes owing than the Atlantic Region.

Taxpayers in the Ontario Region (8 percent) and the Pacific Region (6 percent) are more likely to underreport taxes compared to the Atlantic Region. Again, nonresident taxpayers are the least likely (70 percent) to underreport their taxes owing.

### **Income Factors**

All income factors indicate a greater likelihood of tax underreporting except for taxpayers who receive tax-exempt benefits. The reporting compliance levels are very similar among taxpayers who are wage earners and those receiving investment and rent income. Taxpayers receiving capital gains/losses are the least compliant (40 percent more likely to underreport taxes compared to wage earners). The complex accounting and reporting rules among different companies regarding capital gains/losses might explain this pattern.

Self-employed are 17 percent more likely to underreport income compared to wage earners. The case of the self-employed is consistent with the tax compliance literature. Self-employed taxpayers have higher tax compliance costs so that taxes become more visible to them (Lewis, 1982). The 1985 household Taxpayer Compliance Measurement Program (TCMP) data indicate that, among all sole proprietors, those who engaged in sales from fixed locations (car dealerships, stores, restaurants, etc.) understated taxes by the greatest percentage (39 percent), followed by those involved in transportation, communication, and utilities (36 percent) and those in retail sales (31 percent). Business filers in finance, real estate, and insurance; agriculture, forestry, and fishing; and wholesale trade industries understated taxes by the lowest percentages, 16 percent, 18 percent, and 19 percent, respectively (Andreoni et al., 1998).

Even though taxpayers receiving pension income are ahead when it comes to filing their tax returns, they tend to do a poor job with regard to reporting their taxes owing. Registered pension income earners (22 percent) and RRSP income earners (58 percent) are more likely to underreport their taxes owing compared to taxpayers who do not receive pension and RRSP income.

Tax-exempt income earners are over one and one-half times (or 178 percent) less likely to underreport their taxes than nontax-exempt taxpayers. The tax database does not provide any clues as to this observed behaviour. It may be conjectured that since this group of taxpayers did not work for the income it received (especially, social assistance and federal supplements), there is less incentive not to correctly report income.

## Deduction Factors

When it comes to deduction items, all taxpayers claiming these deductions are more likely to underreport their taxes owing. Taxpayers claiming deductions for childcare expenses are 7 percent more likely to underreport their taxes than taxpayers who have no childcare expenses. This might be due to lack of recordkeeping and the necessary receipts to back such expense deductions. Assessment Officers might disallow expenses that lack supporting documentation.

Taxpayers who claim the registered pension deduction (30 percent) and the RRSP deduction (29 percent) are more likely to underreport their taxes owing compared to taxpayers who do not claim pension and RRSP deductions. This observation could be due to improper deductions for RRSP contributions that have been previously deducted, for example, repayments for the Home Buyers Plan and the Lifelong Learning Plan, that are later corrected through assessments and/or reassessments.

Even though taxpayers who claim exploration and development expenses are quick to file their tax returns on time, they fall behind when it comes to correctly reporting their incomes. These taxpayers are 11 percent more likely to underreport taxes owing than those who do not claim exploration and development expenses.

## CRA Factors

The electronic methods, especially, Efile and Netfile, have exceptionally high levels of reporting compliance compared to the paper method.<sup>19</sup> Taxpayers using Efile (152 percent) and Netfile (133 percent) are less likely to underreport their taxes owing compared to paper filers. The electronic methods have inbuilt mechanisms to control for simple arithmetic errors that might not be self-correcting with the paper method.

It is no coincidence that taxpayers using the CVITP are ahead when it comes to reporting their taxes owing correctly compared to those not using the program. In short, the CVITP seems to achieve its objective, though this study did not take into account agency resources devoted to the program. CVITP users are 52 percent less likely to underreport their taxes owing than

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<sup>19</sup> The results of the Processing Review (PR) are quite different. Based on a random sample of all individuals who claim deductions/credits reviewed in the PR program (the majority of deductions/credits on the T1 return), with the added condition of a \$50 tax recovery resulting if a claim was disallowed, the 2002-2003 program estimated a noncompliance rate of 10.1 percent for 2001 returns. In addition, the results indicated that the estimated noncompliance rate for the Netfile population (13.7 percent) is higher than for all the other filing methods (9.3 percent for paper and 9.9 percent for Efile) (IRPPD, 2004).



those who do not use the program. Education and outreach programs to encourage low-income taxpayers to use the program would influence reporting compliance, all other things being the same.

The tax literature presents mixed results on the impact of tax preparers on tax compliance. Results in this study indicate that taxpayers using a professional tax preparer are 1.5 times more likely to correctly report their taxes compared to those who do not use a tax preparer. This observation is contrary to some of the findings by Erard (1993) and Klepper and Nagin (1989).

Klepper and Nagin (1989) used data from the Internal Revenue Service's (IRS) Taxpayer Compliance Measurement Program, and an index of legal ambiguity based on Revenue Rulings, to assess the impact of preparation mode (paid third party versus self) on compliance at the level of the return line item. Results suggest that preparers contribute to compliance by enforcing legally clear requirements but also contribute to noncompliance, as measured by the IRS, by helping taxpayers take advantage of legal ambiguity. Furthermore, an analysis of a campaign to enforce estimated tax requirements conducted by the Pennsylvania Department of Revenue suggests that tax preparers also provide an important network for communicating tax agency enforcement priorities to taxpayers.

Erard (1993) provided a joint analysis of tax preparation mode and tax noncompliance. He used microlevel audit data from the Internal Revenue Service. Although the availability of tax practitioners undoubtedly reduces many of the informational and computational barriers to tax compliance, results indicate that use of certified public accountants (CPAs) and attorneys is associated with increased noncompliance. Results may have negative implications for both tax equity and tax efficiency.

The tax literature argues that higher taxes may or may not lead to tax evasion (Allingham and Sandmo, 1972; and Yitzhaki, 1974). Compared to the lowest tax bracket (16 percent), taxpayers in the higher tax brackets (22 percent, 26 percent, and 29 percent) are more likely to underreport taxes owing, all other things being the same. Analysis indicates that taxpayers in the 22-percent, 26-percent, and 29-percent tax brackets are 13 percent, 11 percent, and 4 percent, respectively, more likely not to report taxes correctly compared to the lowest tax bracket taxpayers (16 percent). Estimates in our study reinforce the following previous studies on the marginal tax rate and tax compliance.

Clotfelter (1983) finds that the elasticity of underreporting with respect to the marginal tax rate is positive for every audit class, with the magnitude of the elasticity varying from 0.5 to more than 3.0. In their analysis of

noncompliance based on Swiss canton data, Pommerehne and Frey (1992) include both a measure of the canton tax rate and the median income as independent variables. Their results indicate a positive, significant relationship between each of these variables and noncompliance, similar to Clotfelter's result. Joulfaian and Rider (1996) examine the impact of tax rates (inclusive of Social Security taxes and accounting for the Earned Income Tax Credit) for a random sample of low-income households from the 1988 Taxpayer Compliance Measurement Program (TCMP). They find that both the probability and the level of noncompliance among low-income proprietors are positively and significantly associated with the marginal tax rate, consistent with Clotfelter.

On the contrary, Alm, Bahl, and Murray (1993) report results for Jamaica from the estimation of three-equation models in which the dependent variables are evasion, reported income, and "allowance" income. They include the marginal tax rate as an independent variable in their equations but did not include any measure of income. Their results indicate that an increase in the marginal tax rate actually lowers evasion.

## **Payment Compliance Behavior**

This subsection discusses factors that influence payment tax compliance for the study period, 1996–2002. Table 14 shows the odds ratio estimates, and Table 15 shows the interpretation of the odds ratio estimates.

### **Demographic Factors**

Results of the estimates for demographic factors on tax payment compliance are mixed. Logistic regression estimates indicate that males are 30 percent more likely to pay taxes late compared to females. Males generally have higher incomes and more financial obligations compared to females, and hence have higher tax obligations. This might explain the inability of males to honor their tax payments compared to females.

Older taxpayers come ahead of young and middle-aged taxpayers with regard to payment compliance. Older taxpayers are 20 percent less likely to pay taxes late, while middle-aged taxpayers are 6 percent more likely to pay taxes late compared to young taxpayers.

The same pattern in payment behavior is observed in filing and reporting compliance. Separated and divorced taxpayers have the lowest payment compliance rates compared to married and common-law taxpayers, as well as other marital categories. Separated taxpayers are 33 percent more likely

**Table 14: Payment Compliance – Odds Ratio Estimates**

Parameters		Point Estimate	95% Wald Confidence Intervals
<b>Demographic Factors</b>			
Gender	Male vs. Female	0.698	0.698 – 0.699
Age Group	Middle vs. Young	0.936	0.934 – 0.937
	Old vs. Young	1.201	1.199 – 1.204
Marital Status	Widowed vs. Married/CL	0.814	0.812 – 0.816
	Divorced vs. Married/CL	0.697	0.695 – 0.698
	Separated vs. Married/CL	0.672	0.670 – 0.674
	Single vs. Married/CL	1.023	1.021 – 1.025
Region	Quebec vs. Atlantic	1.708	1.704 – 1.712
	Ontario vs. Atlantic	1.143	1.141 – 1.146
	Prairies vs. Atlantic	1.116	1.113 – 1.119
	Pacific vs. Atlantic	1.047	1.044 – 1.050
	Non-Residents vs. Atlantic	1.464	1.433 – 1.495
<b>Income Factors</b>			
Pension Income	Pension vs. No Pension	0.731	0.729 – 0.733
RRSP Income	Income vs. No Income	0.395	0.394 – 0.396
Tax-Exempt Income	Exempt vs. No Exempt	2.385	2.380 – 2.391
Main Source of Income	Investment/Rent vs. Wages	0.723	0.722 – 0.724
	Capital Gains/Loss vs. Wages	0.586	0.579 – 0.593
	Self-Employed vs. Wages	0.357	0.356 – 0.357
<b>Deduction Factors</b>			
Child Care Expenses	Expenses vs. No Expenses	1.083	1.080 – 1.086
RPP Deduction	Deduction vs. No Deduction	1.150	1.148 – 1.152
RRSP Deduction	Deduction vs. No Deduction	1.022	1.021 – 1.024
Exploration & Devt. Expenses	Expenses vs. No Expenses	0.976	0.968 – 0.985
<b>CRA Program Factors</b>			
Voluntary Program Preparer	Participant vs. Non-Participant	3.957	3.878 – 4.038
Tax Preparer Services	Preparer vs. No Preparer	0.637	0.636 – 0.638
Filing Method	EFILE vs. Paper	2.703	2.698 – 2.707
	TELEFILE vs. Paper	13.101	12.909 – 13.297
	NETFILE vs. Paper	4.336	4.312 – 4.360
Marginal Tax Rates (%)	22% bracket vs. 16% bracket	0.645	0.644 – 0.646
	26% bracket vs. 16% bracket	0.492	0.490 – 0.494
	29% bracket vs. 16% bracket	0.395	0.393 – 0.398

## Notes:

- N = 128,103,395
- Nagalkerke R<sup>2</sup> (Max-rescaled R-Square) = 0.1384
- All coefficients in the logistic regression have a statistical significance level of 0.0001.

to pay taxes late, while divorced taxpayers are 30 percent more likely to pay taxes late compared to married and common-law taxpayers.

Estimates indicate that Quebec Region is the favored region when it comes to paying taxes owed. Quebec Region is 71 percent less likely to pay taxes late compared to taxpayers in the Atlantic Region. Unexpectedly, nonresident taxpayers are ranked second regarding their ability to pay taxes owing. Specifically, nonresident taxpayers are 46 percent less likely to pay taxes late than taxpayers in the Atlantic Region.

## Income Factors

The taxpayers' sources of income influence their ability to pay taxes on time. Wage earners do a better job paying taxes owing compared to other

**Table 15: Payment Compliance – Interpretation of the Odds Ratio Estimates\***

Parameters		Payment Compliance Outcome	
Demographic Factors		Less Likely to Pay Late	More Likely to Pay Late
Gender	Male vs. Female		30%
Age Group	Middle vs. Young		6%
	Old vs. Young	20%	
Marital Status	Widowed vs. Married/CL		19%
	Divorced vs. Married/CL		30%
	Separated vs. Married/CL		33%
	Single vs. Married/CL		2%
Region	Quebec vs. Atlantic	71%	
	Ontario vs. Atlantic	14%	
	Prairies vs. Atlantic	11%	
	Pacific vs. Atlantic	4%	
	Non-Residents vs. Atlantic	46%	
<b>Income Factors</b>			
Pension Income	Pension vs. No Pension		27%
RRSP Income	Income vs. No Income		60%
Tax-Exempt Income	Exempt vs. No Exempt	138%	
Main Source of Income	Investment/Rent vs. Wages		28%
	Capital Gains/Loss vs. Wages		41%
	Self-Employed vs. Wages		64%
<b>Deduction Factors</b>			
Child Care Expenses	Expenses vs. No Expenses	8%	
RPP Deduction	Deduction vs. No Deduction	15%	
RRSP Deduction	Deduction vs. No Deduction	2%	
Exploration & Devt. Expenses	Expenses vs. No Expenses		2%
<b>CRA Program Factors</b>			
Voluntary Program Preparer	Participant vs. Non-Participant	295%	
Tax Preparer Services	Preparer vs. No Preparer		36%
Filing Method	EFILE vs. Paper	170%	
	TELEFILE vs. Paper	1,310%	
	NETFILE vs. Paper	333%	
Marginal Tax Rates (%)	22% bracket vs. 16% bracket		35%
	26% bracket vs. 16% bracket		51%
	29% bracket vs. 16% bracket		60%

\* All numbers rounded to the nearest whole number.

major income sources. The self-employed are 64 percent more likely, taxpayers receiving capital gains/losses are 41 percent more likely, and taxpayers receiving investment and rent income are 28 percent more likely to pay taxes late compared to wage earners. Registered pension income earners (27 percent) and RRSP income earners (60 percent) are more likely to pay taxes late compared to those not receiving pension and RRSP income. This might be explained by the low-income status of most pensioners. Tax-exempt taxpayers are 138 percent less likely to pay any taxes late compared to other taxpayers.

## **Deduction Factors**

All taxpayers claiming deductions do a good job when it comes to paying taxes. Taxpayers who claim childcare deductions are 8 percent less likely to pay taxes late compared to those who do not claim childcare deductions. This observation is not surprising, given that most taxpayers who claim childcare deductions are females. Analysis in this study indicates that females are more tax compliant (filing, reporting, and payment) than males, all other things being the same.

Compared to taxpayers who do not claim registered pension and RRSP deductions, taxpayers who claim deductions for pension and RRSP are 15 percent and 2 percent, respectively, less likely to pay taxes late. Taxpayers who claim exploration and development expenses are 2 percent more likely to pay taxes late than those who do not make such claims.

## **CRA Factors**

The general observation is that CRA factors have both favorable and unfavorable influence on the willingness of taxpayers to honor tax payment obligations. Estimates here are very similar to filing and reporting compliance behavior. The electronic methods indicate a higher level of payment compliance than the paper method. CVITP users are less likely to pay taxes late than taxpayers who do not use the program. Specifically, CVITP users are 3.8 times less likely to pay any balance owing late than taxpayers who do not make use of the program. Taxpayers using a professional tax preparer are 36 percent more likely to pay taxes late compared to other taxpayers. This should not be surprising since taxpayers may have an incentive to first pay the tax preparer than to pay the tax authority. This might be due to the need to maintain the established networking relationship with the professional tax preparer.

Similar to reporting behavior, taxpayers in the highest tax brackets (22 percent, 26 percent, and 29 percent) are more likely to pay taxes late. It is obvious that taxpayers in the highest tax brackets have higher tax obligations in addition to other financial responsibilities that might constrain their ability to pay taxes on time. The next section concludes the paper.

## **Conclusion**

Personal income tax is an important source of revenue for both federal and provincial/territorial governments in Canada. For instance, personal income

taxes accounted for an average of \$81.6 billion quarterly in revenues for the Federal government from 2000 to 2004. The Canadian tax system assumes voluntary compliance and self-assessment by individual taxpayers. Even though many taxpayers comply with their tax obligations, others do not. The tax literature identifies several factors, both economic and noneconomic, as determinants of the taxpayer compliance decision. This research aims at identifying the factors that contribute to the observed tax compliance of individual taxpayers over time.

A balanced panel (longitudinal microdata from T1 tax returns) was used to analyze the impact of several economic and non-economic factors on Canadian tax compliance from 1996 to 2002. Frequency distributions were used to study patterns in tax compliance among different categories of taxpayers. Also, a multivariate analysis using a logistic regression was used to identify the likelihood of various economic and noneconomic factors influencing tax compliance.

The findings of the study indicate several contributing factors for Canadian tax compliance. At the same time, other factors represent high risks to Canadians' tax compliance. These risk areas are worthy of greater attention by the Canada Revenue Agency. Specifically, the study finds that females are more tax compliant (filing, reporting, and payment) than males. Furthermore, middle-aged taxpayers are less tax compliant compared to young and older taxpayers. Married and common-law taxpayers are more likely to be tax compliant than other marital status categories. Nonresidents have a lower compliance rate than other regions of Canada.

Among others, low-income taxpayers are more likely to be tax compliant compared to middle- and high-income taxpayers. This finding is also true for taxpayers in the lowest tax bracket compared to taxpayers in the highest tax bracket. The likelihood of wage earners filing, reporting, and paying taxes due are better than taxpayers receiving investment and rent income and capital gains/losses and for the self-employed. The electronic methods are superior in promoting tax compliance relative to the paper method. Also, the use of professional tax preparers improves reporting compliance, though the record on filing and payment compliance is unfavorable. Finally, taxpayers who claim various deductions (e.g., childcare expenses, pension and RRSP, and exploration and development expenses) are less likely to be reporting tax compliant than those taxpayers who do not claim such deductions.

The analysis in this paper has revealed several interesting facts about Canadian taxpayers' compliance behavior with regard to filing, reporting, and paying taxes. Other interesting research questions, though, were beyond

the scope of this study. For instance, what are the characteristics of taxpayers who use professional tax preparers to file their tax returns? Or what are the characteristics of taxpayers who avail themselves of the benefits of the community volunteer income tax program to file their tax returns? Given the importance of these topics, they surely deserve further investigation.

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## Appendices

### Appendix A: Collinearity Tests for the Independent Variables

Variable	Variance Inflation Factor	Eigenvalue	Condition Index
Gender	1.14374	2.22051	1.69249
Child Care Expenses	1.06488	1.35765	2.16451
RPP Income	2.72935	1.25314	2.25296
RRSP Deduction	1.26059	1.11730	2.38598
RRSP Income	1.02607	1.08395	2.42241
Tax Preparer Services	1.50937	1.03641	2.47735
RPP Deduction	1.21546	1.02914	2.48608
Exploration and Development Expenses	1.02160	1.01589	2.50225
Tax-Exempt Income	1.24341	1.00351	2.51763
Voluntary Program Participant	1.01924	1.00155	2.52009
Quebec	3.16964	0.99915	2.52312
Ontario	3.62269	0.98819	2.53708
Prairies	2.62864	0.96714	2.56454
Pacific	2.30588	0.95018	2.58733
Non-residents	1.00910	0.92521	2.62200
Widowed	1.34071	0.90088	2.65718
Divorced	1.05661	0.88466	2.68143
Separated	1.03997	0.84295	2.74697
Single	1.31252	0.76075	2.89157
Efile	1.39501	0.70053	3.01328
Telefile	1.02657	0.94909	3.13040
Netfile	1.03467	0.55963	3.37135
Investment/Rent Income	1.16124	0.52574	3.47832
Capital Gains	1.00316	0.46161	3.71205
Self-employed	1.14546	0.41883	3.89702
Middle Age	1.77874	0.33583	4.35204
Old Age	3.34812	0.29350	4.65528
Marginal Tax Rate (22%)	1.34462	0.20133	5.62086
Marginal Tax Rate (26%)	1.11324	0.12108	7.24811
Marginal Tax Rate (29%)	1.07200	0.03393	13.69200

Notes:

- Variance Inflation Factor (VIF) shows how the variance of an estimator is inflated by the presence of multicollinearity. As a rule of thumb, if the VIF of a variable exceeds 10 that variable is said to be highly collinear.
- Eigenvalues near zero indicate strong collinearity.
- Condition Index values between 10 and 30 suggest weak dependencies, between 30 and 100 indicate moderate dependencies, and greater than 100 indicate strong collinearity.

## Appendix B: Frequency Counts for the Tax Compliance Tables

**Table 1B: Tax Compliance in General, 1996-2002**

	1996	1997	1998	1999	2000	2001	2002
Filing	16,888,770	16,924,902	16,863,767	16,892,582	16,856,664	16,872,000	16,983,174
Reporting	17,646,664	17,494,103	17,360,070	17,354,053	17,381,343	17,369,887	17,337,096
Payment	16,493,785	16,343,111	16,223,042	16,100,707	16,059,130	16,490,572	16,638,926

**Table 2B: Tax Compliance by Gender, 1996-2002**

	1996	1997	1998	1999	2000	2001	2002
Male							
Filing	8,292,667	8,302,822	8,266,711	8,282,835	8,273,240	8,287,825	8,368,108
Reporting	8,631,889	8,556,320	8,492,096	8,492,078	8,513,754	8,489,711	8,474,884
Payment	7,930,854	7,838,213	7,764,142	7,693,810	7,680,246	7,919,411	8,008,304
Female							
Filing	8,593,154	8,619,126	8,594,109	8,606,770	8,580,455	8,581,195	8,612,064
Reporting	9,011,708	8,934,623	8,864,824	8,858,822	8,864,461	8,877,046	8,859,051
Payment	8,559,958	8,501,876	8,455,861	8,404,079	8,375,913	8,568,168	8,627,633

**Table 3B: Tax Compliance by Age Group, 1996-2002**

	Year	Age Group (Years)						
		0 – 14	15 – 24	25 – 34	35 – 44	45 – 54	55 – 64	65+
Filing	1996	28,054	2,052,693	3,483,272	3,979,668	3,005,629	1,958,674	2,380,780
	1997	20,634	1,795,303	3,350,296	4,031,827	3,129,875	2,022,910	2,574,057
	1998	15,691	1,511,456	3,195,013	4,050,316	3,238,524	2,094,453	2,758,314
	1999	12,164	1,232,899	3,076,484	4,074,157	3,378,952	2,176,113	2,941,813
	2000	9,432	947,374	2,981,024	4,035,864	3,502,307	2,256,087	3,124,576
	2001	7,484	672,901	2,926,807	3,984,505	3,595,136	2,378,716	3,306,451
	2002	5,904	410,708	2,914,393	3,933,855	3,695,809	2,535,395	3,487,110
Reporting	1996	31,147	2,237,541	3,758,456	4,200,577	3,095,361	1,970,728	2,352,854
	1997	21,915	1,913,049	3,583,725	4,222,261	3,200,577	2,024,916	2,527,660
	1998	16,579	1,602,730	3,418,279	4,236,572	3,296,472	2,092,282	2,697,156
	1999	12,733	1,301,940	3,283,502	4,250,191	3,436,621	2,177,736	2,891,330
	2000	9,978	1,005,716	3,198,590	4,244,116	3,580,987	2,262,205	3,079,751
	2001	7,895	715,758	3,129,702	4,180,686	3,672,004	2,379,298	3,284,544
	2002	6,225	429,206	3,055,474	4,082,728	3,751,974	2,533,816	3,477,673
Payment	1996	30,028	2,165,499	3,535,851	3,899,127	2,854,795	1,799,826	2,208,659
	1997	21,251	1,847,399	3,369,105	3,925,831	2,955,875	1,841,485	2,382,165
	1998	15,790	1,556,188	3,231,509	3,947,379	3,052,726	1,891,540	2,527,910
	1999	11,619	1,256,651	3,092,824	3,942,560	3,162,177	1,950,245	2,684,631
	2000	9,529	963,837	3,001,471	3,912,086	3,278,970	2,028,089	2,865,148
	2001	7,600	692,448	3,007,768	3,970,481	3,471,828	2,215,407	3,125,040
	2002	5,992	421,668	2,986,800	3,931,312	3,585,528	2,369,329	3,338,297

**Table 4B: Tax Compliance by Marital Status, 1996-2002**

	Year	Marital Status					
		Married	Common-Law	Widowed	Divorced	Separated	Single
Filing	1996	9,217,779	937,427	957,856	848,134	609,688	4,278,377
	1997	9,304,123	1,002,973	1,017,211	861,212	628,337	4,092,107
	1998	9,340,625	1,056,223	1,071,919	869,487	639,660	3,874,568
	1999	9,424,774	1,099,634	1,124,826	882,332	654,287	3,699,231
	2000	9,462,120	1,126,775	1,173,926	894,338	670,920	3,523,440
	2001	9,494,431	1,178,793	1,230,110	917,252	687,532	3,358,650
	2002	9,554,890	1,240,102	1,282,886	937,512	708,500	3,256,968
Reporting	1996	9,434,711	992,299	960,962	899,250	668,935	4,646,565
	1997	9,443,779	1,050,095	1,014,320	903,623	682,089	4,378,054
	1998	9,448,662	1,100,839	1,062,101	906,352	693,472	4,134,256
	1999	9,519,134	1,140,849	1,119,377	918,207	706,929	3,939,264
	2000	9,593,383	1,173,450	1,175,489	933,454	728,886	3,768,922
	2001	9,610,327	1,217,206	1,241,172	955,652	743,707	3,596,525
	2002	9,631,314	1,270,528	1,301,250	963,658	752,002	3,415,780
Payment	1996	8,745,473	926,902	891,204	830,367	609,526	4,447,602
	1997	8,757,239	979,397	946,610	833,694	620,823	4,184,344
	1998	8,752,229	1,026,861	988,411	840,026	633,011	3,969,273
	1999	8,742,950	1,058,908	1,034,644	850,109	643,487	3,761,542
	2000	8,800,230	1,082,399	1,084,942	858,850	656,885	3,569,414
	2001	9,081,641	1,159,529	1,175,416	907,783	690,836	3,471,211
	2002	9,204,078	1,220,882	1,236,229	926,495	708,385	3,340,572

**Table 5B: Tax Compliance by Province/Territory, 1996-2002**

	Year	Province/Territory					
		NFL	PEI	NS	NB	QC	ON
Filing	1996	323,621	79,857	529,336	449,182	4,368,885	6,199,468
	1997	319,138	79,493	526,302	445,917	4,376,340	6,213,079
	1998	313,011	79,268	525,590	444,782	4,378,547	6,170,229
	1999	313,923	79,256	529,455	446,471	4,385,468	6,191,523
	2000	308,609	79,081	525,376	443,504	4,373,231	6,168,179
	2001	306,674	79,304	523,498	441,179	4,373,534	6,177,758
	2002	306,283	79,538	524,977	443,277	4,390,835	6,230,818
Reporting	1996	338,914	82,533	545,743	460,851	4,520,348	6,485,915
	1997	322,341	79,468	533,806	449,274	4,482,808	6,439,230
	1998	311,532	77,273	521,887	439,812	4,464,865	6,389,884
	1999	306,599	76,392	521,518	436,954	4,458,350	6,393,064
	2000	302,491	76,974	521,567	435,437	4,470,898	6,410,092
	2001	302,209	77,471	521,497	434,600	4,445,727	6,411,352
	2002	299,421	76,844	519,241	431,633	4,449,119	6,395,707
Payment	1996	317,613	75,758	511,771	432,481	4,298,284	6,053,693
	1997	304,041	73,859	503,030	423,954	4,265,341	6,017,019
	1998	294,958	73,294	500,416	419,353	4,236,043	5,971,386
	1999	293,911	73,008	501,023	420,835	4,212,946	5,898,920
	2000	292,583	73,113	496,504	415,994	4,189,704	5,899,948
	2001	297,382	75,161	508,175	426,915	4,295,371	6,052,872
	2002	296,647	75,525	507,616	426,940	4,310,125	6,123,372

**Table 5B: Tax Compliance by Province/Territory, 1996-2002 (Continued)**

	Year	Province/Territory						
		MB	SK	AB	BC	NWT	YU	NU
Filing	1996	653,824	575,297	1,543,610	2,113,138	27,588	15,171	-
	1997	653,239	574,232	1,574,790	2,110,600	27,588	14,939	-
	1998	649,474	568,688	1,590,310	2,095,609	27,262	14,532	-
	1999	648,181	567,038	1,591,374	2,088,929	18,087	14,699	8,980
	2000	645,594	561,337	1,615,773	2,085,706	17,542	14,558	8,733
	2001	643,526	557,308	1,626,293	2,091,738	17,923	14,432	9,099
	2002	645,072	556,418	1,646,873	2,105,565	18,460	14,775	9,614
Reporting	1996	676,736	587,267	1,644,328	2,243,877	31,877	17,029	-
	1997	671,188	580,598	1,652,738	2,225,097	30,956	16,723	-
	1998	667,496	571,593	1,662,916	2,196,490	30,479	16,358	-
	1999	665,659	571,162	1,667,244	2,199,243	20,360	16,374	10,035
	2000	662,056	566,771	1,685,172	2,192,243	20,013	16,145	10,388
	2001	660,337	565,228	1,703,385	2,190,295	20,211	15,950	10,469
	2002	657,050	559,414	1,700,310	2,187,813	20,224	15,993	10,553
Payment	1996	634,115	543,346	1,505,287	2,066,515	28,628	15,026	-
	1997	621,220	532,859	1,505,813	2,042,058	28,595	15,300	-
	1998	616,178	524,136	1,518,426	2,016,545	27,679	14,890	-
	1999	611,701	520,879	1,520,261	1,993,543	18,384	14,752	9,208
	2000	604,228	518,058	1,523,351	1,992,645	17,718	14,428	9,547
	2001	616,859	525,735	1,580,514	2,057,126	18,263	14,638	9,616
	2002	625,108	528,711	1,617,144	2,069,721	19,077	14,817	9,888

**Table 6B: Tax Compliance by Taxable Income Group, 1996-2002**

	Year	Taxable Income Group (2004)		
		Low (\$35,000 or less)	Middle (More than \$35,000 but not more than \$113,804)	High (More than \$113,804)
Filing	1996	15,763,564	1,060,937	64,269
	1997	15,657,957	1,187,781	79,146
	1998	11,640,644	4,954,480	268,643
	1999	15,553,429	1,248,671	90,482
	2000	16,406,035	399,231	51,398
	2001	16,327,955	487,285	56,760
	2002	16,054,490	850,034	78,650
Reporting	1996	16,521,908	1,061,058	63,698
	1997	16,226,899	1,188,635	78,569
	1998	12,152,613	4,938,236	269,221
	1999	16,017,355	1,246,514	90,184
	2000	16,927,747	402,937	50,659
	2001	16,825,125	488,562	56,200
	2002	16,410,113	849,042	77,941
Payment	1996	15,550,393	901,046	42,346
	1997	15,274,216	1,016,299	52,596
	1998	11,556,728	4,476,124	190,190
	1999	15,000,779	1,042,607	57,321
	2000	15,729,415	297,405	32,310
	2001	16,059,346	392,858	38,368
	2002	15,855,467	728,114	55,345

**Table 7B: Tax Compliance by Major Source of Income, 1996-2002**

	Year	Major Source of Income				
		Wage Earners	Gross Rents up to \$125,000	Investment Income over \$3,000	Gross Rents in Excess of \$125,000	Capital Gain/Losses > \$1,000 or Gross Proceeds > \$25,000
Filing	1996	12,556,049	899,143	1,178,590	38,372	19,273
	1997	12,626,746	904,495	1,061,109	38,510	21,274
	1998	12,574,930	903,595	1,030,628	39,710	29,357
	1999	12,381,438	913,637	1,226,943	36,313	30,668
	2000	12,255,095	917,413	1,327,823	33,412	25,084
	2001	12,293,738	926,898	1,301,955	34,645	26,117
	2002	12,523,835	936,612	1,160,641	35,231	26,136
Reporting	1996	13,180,851	930,835	1,155,246	39,049	18,921
	1997	13,053,738	937,483	1,039,015	39,093	21,003
	1998	12,914,478	941,068	1,007,993	40,106	28,843
	1999	12,685,744	952,223	1,203,132	36,806	30,218
	2000	12,619,942	959,185	1,299,044	33,788	24,752
	2001	12,655,869	964,827	1,282,109	35,018	25,385
	2002	12,777,029	972,911	1,148,073	35,531	25,440
Payment	1996	12,666,400	840,259	1,051,057	30,296	16,408
	1997	12,581,984	843,391	946,432	29,946	18,353
	1998	12,529,284	834,816	903,769	29,767	25,244
	1999	12,275,584	834,191	1,063,665	25,893	25,739
	2000	12,139,184	843,055	1,144,367	23,778	21,326
	2001	12,452,587	880,451	1,178,712	25,599	22,954
	2002	12,716,382	892,912	1,063,788	26,205	23,328

**Table 7B: Tax Compliance by Major Source of Income, 1996-2002 (Continued)**

	Year	Major Source of Income				
		Farming	Professional	Business	Fishing	Commission
Filing	1996	366,748	249,537	1,234,712	37,073	309,273
	1997	367,685	257,265	1,292,014	35,001	320,803
	1998	365,257	262,343	1,314,476	32,147	311,324
	1999	362,449	266,196	1,320,382	31,863	322,693
	2000	360,086	268,802	1,321,300	31,317	325,332
	2001	356,049	264,971	1,313,045	30,550	324,032
	2002	350,979	268,004	1,332,288	30,581	318,867
Reporting	1996	368,548	257,691	1,330,213	36,089	329,221
	1997	370,170	264,345	1,394,060	33,737	341,409
	1998	368,469	271,324	1,422,943	31,109	333,737
	1999	366,636	275,035	1,428,349	30,660	345,250
	2000	363,847	275,718	1,425,807	30,575	348,685
	2001	359,710	269,701	1,403,393	29,569	344,306
	2002	353,298	268,633	1,393,322	29,196	333,663
Payment	1996	328,918	191,661	1,061,956	25,996	280,834
	1997	327,676	194,885	1,087,125	24,302	289,017
	1998	321,298	195,048	1,082,420	21,492	279,904
	1999	314,349	192,944	1,059,835	19,614	288,893
	2000	316,670	195,651	1,063,813	20,090	291,196
	2001	318,913	201,558	1,089,142	21,178	299,478
	2002	314,204	203,594	1,085,189	20,581	292,743

**Table 8B: Tax Compliance by Marginal Tax Rates, 1996-2002**

	Year	Marginal Tax Rates (2004)			
		Marginal Tax Rate (16%)	Marginal Tax Rate (22%)	Marginal Tax Rate (26%)	Marginal Tax Rate (29%)
Filing	1996	15,763,564	961,206	99,731	64,269
	1997	15,657,957	1,072,071	115,710	79,146
	1998	11,640,644	4,244,605	709,875	268,643
	1999	15,553,429	1,117,645	131,026	90,482
	2000	16,406,035	333,110	66,121	51,398
	2001	16,327,955	411,381	75,904	56,760
	2002	16,054,490	740,215	109,819	78,650
Reporting	1996	16,521,908	961,878	99,180	63,698
	1997	16,226,899	1,073,285	115,350	78,569
	1998	12,152,613	4,227,541	710,695	269,221
	1999	16,017,355	1,114,741	131,773	90,184
	2000	16,927,747	336,818	66,119	50,659
	2001	16,825,125	412,944	75,618	56,200
	2002	16,410,113	739,139	109,903	77,941
Payment	1996	15,550,393	830,171	70,875	42,346
	1997	15,274,216	932,589	83,710	52,596
	1998	11,556,728	3,870,090	606,034	190,190
	1999	15,000,779	950,015	92,592	57,321
	2000	15,729,415	253,528	43,877	32,310
	2001	16,059,346	338,404	54,454	38,368
	2002	15,855,467	645,408	82,706	55,345

**Table 9B: Tax Compliance by Filing Methods, 1996-2002**

	Year	Filing Method				
		Paper Filing (Hardcopy)	Electronic Filing (EFILE)	Telephone Filing (TELEFILE)	Electronic Data Interchange (EDI)	Internet Home Filing
Filing	1996	13,322,351	3,324,050	4,006	238,363	-
	1997	12,919,977	3,460,209	263,925	280,791	-
	1998	12,567,659	3,559,761	402,693	333,267	387
	1999	12,151,701	3,506,633	490,970	433,685	309,593
	2000	11,341,689	3,425,544	452,872	650,165	986,394
	2001	10,634,046	3,400,485	380,935	807,024	1,649,510
	2002	9,986,227	1,945,549	456,342	-	1,708,796
Reporting	1996	14,055,127	3,349,236	3,928	238,373	-
	1997	13,635,830	3,469,066	107,973	281,234	-
	1998	13,245,572	3,642,766	137,483	333,845	404
	1999	12,862,566	3,590,261	157,781	433,901	309,542
	2000	12,073,795	3,515,959	147,772	653,086	990,731
	2001	11,304,944	3,487,415	117,335	813,077	1,647,116
	2002	10,477,072	1,995,022	146,117	-	1,737,364
Payment	1996	13,074,200	3,185,038	4,005	230,542	-
	1997	12,529,678	3,281,932	262,621	268,880	-
	1998	12,115,222	3,392,153	399,998	315,260	409
	1999	11,635,047	3,271,992	487,162	401,331	305,175
	2000	10,727,209	3,281,367	463,891	600,983	985,680
	2001	10,401,900	3,297,798	391,723	756,143	1,643,008
	2002	9,748,389	1,903,270	465,879	-	1,738,986

## Appendix C: Chi-Square and Cramer's V Tests of Association

**Table 2C: Tax Compliance by Gender, Cramer's V Tests**

	1996	1997	1998	1999	2000	2001	2002
Filing	0.0437	0.0418	0.0429	0.0425	0.0421	0.0398	0.0392
Reporting	0.0343	0.0327	0.0322	0.0322	0.0286	0.0347	0.0343
Payment	0.0698	0.0739	0.0772	0.0787	0.0757	0.0734	0.0699

**Table 3C: Tax Compliance by Age, Cramer's V Tests**

	1996	1997	1998	1999	2000	2001	2002
Filing	0.0904	0.0861	0.0893	0.0878	0.0883	0.0837	0.0734
Reporting	0.0225	0.0237	0.0284	0.0304	0.0281	0.0292	0.0311
Payment	0.0706	0.0610	0.0772	0.0544	0.0508	0.0441	0.0480

**Table 4C: Tax Compliance by Marital Status, Cramer's V Tests**

	1996	1997	1998	1999	2000	2001	2002
Filing	0.0738	0.0719	0.0738	0.07430	0.0723	0.0713	0.0546
Reporting	0.0192	0.0176	0.0207	0.0219	0.0212	0.0205	0.0214
Payment	0.0546	0.0474	0.0484	0.0458	0.0419	0.0403	0.0376

**Table 5C: Tax Compliance by Province and Territory, Cramer's V Tests**

	1996	1997	1998	1999	2000	2001	2002
Filing	0.0444	0.0474	0.0577	0.0592	0.0583	0.0562	0.0551
Reporting	0.0241	0.0294	0.0386	0.0416	0.0438	0.0411	0.0455
Payment	0.0539	0.0594	0.0601	0.0638	0.0596	0.0644	0.0564

**Table 6C: Tax Compliance by Taxable Income Group, Cramer's V Tests**

	1996	1997	1998	1999	2000	2001	2002
Filing	0.0375	0.0377	0.0891	0.0378	0.0195	0.0209	0.0214
Reporting	0.0220	0.0172	0.0814	0.0224	0.0021	0.0045	0.0099
Payment	0.1024	0.0970	0.1290	0.1057	0.0940	0.0949	0.0994

**Table 7C: Tax Compliance by Major Source of Income, Cramer's V Tests**

	1996	1997	1998	1999	2000	2001	2002
Filing	0.0594	0.0556	0.0544	0.0551	0.0541	0.0518	0.0444
Reporting	0.0130	0.0248	0.0332	0.0375	0.0352	0.0332	0.0359
Payment	0.1752	0.1769	0.1885	0.1968	0.1881	0.1954	0.2090

**Table 8C: Tax Compliance by Marginal Tax Rates, Cramer's V Tests**

	1996	1997	1998	1999	2000	2001	2002
Filing	0.0377	0.0380	0.0891	0.0382	0.0199	0.0214	0.0284
Reporting	0.0184	0.0146	0.0676	0.0199	0.0027	0.0044	0.0098
Payment	0.1073	0.1018	0.1333	0.1100	0.0949	0.0964	0.1024

**Table 9C: Tax Compliance by Filing Methods, Cramer's V Tests**

	1996	1997	1998	1999	2000	2001	2002
Filing	0.0814	0.0917	0.0767	0.0804	0.0820	0.0924	0.0746
Reporting	0.0422	0.2866	0.3517	0.3731	0.3795	0.3817	0.3883
Payment	0.0716	0.0866	0.0830	0.0817	0.1256	0.1186	0.1141

**Chi-Square Tests**

The test examines whether there is an association between two categorical variables. A statistically significant chi-square statistic indicates strong evidence that an association exists between the variables in the analysis. The chi-square test does not measure the strength of the association.

Note: All the Chi-Square tests for the cross-tabulations in the paper are statistically significant with p-values of  $<0.0001$ , which implies strong evidence that an association exists between the variables and tax compliance.

**Cramer's V Statistic**

The test is one measure of the strength of the association between two nominal variables. It is in the range of  $-1$  to  $+1$  for 2-by-2 tables and 0 to 1 for larger tables. Values further away from 0 indicate the presence of a relatively strong association. Cramer's V test results are shown in the following tables.



## Appendix D: Characteristics Associated with Filing, Reporting, and Payment Compliance

Variable	Description of Variable	Dummy Variable Description
<i>Dependent Variables</i>		
Filing Compliance	A dummy variable used to indicate whether an individual's tax return has been filed on time or has been filed late.	0 = Filed on Time 1 = Filed Late
Reporting Compliance	A dummy variable used to indicate whether an individual has correctly reported his/her taxes owed or underreported his/her taxes owed.	0 = Reported Taxes Correctly 1 = Underreported Taxes
Payment Compliance	A dummy variable used to indicate whether an individual has paid his/her taxes owing on time or has paid his/her taxes owing late.	0 = Paid Taxes on Time 1 = Paid Taxes Late
<i>Independent Variables</i>		
<b>Demographic Factors</b>		
Gender	A dummy variable indicating the gender of the individual.	0 = Female 1 = Male
Age Group	A dummy variable used to indicate the age category (in years) an individual falls under. Three categories are used in the study: 34 and under, from 35 to 54, and 55 and over.	0 = 34 and under 1 = 35 to 54 2 = 55 and over
Marital Status	A dummy variable used to indicate an individual's marital status.	0 = Married or Common-Law 1 = Widowed 2 = Divorced 3 = Separated 4 = Single
Region	A dummy variable used to indicate the region in which an individual resides.	0 = Atlantic Region 1 = Quebec Region 2 = Ontario Region 3 = Prairies Region 4 = Pacific Region 5 = Non-Resident of Canada
<b>Income Factors</b>		
Pension Income	A dummy variable used to indicate whether an individual received pension income or not.	0 = No Pension Income 1 = Pension Income
RRSP Income	A dummy variable used to indicate whether an individual received RRSP income.	0 = No RRSP Income 1 = RRSP Income
Tax-Exempt Income	A dummy variable used to indicate whether an individual received tax-exempt income (Worker's compensation benefits, Social assistance payments, and Net federal supplements).	0 = No Tax-Exempt Income 1 = Tax-Exempt Income
Main Source of Income	A dummy variable used to indicate an individual's main source of income.	0 = Wage Earner 1 = Investment and Rent Income 2 = Capital Gains and/or Losses 3 = Self-Employed Income

Deduction Factors		
Childcare Expenses	A dummy variable used to indicate whether an individual has childcare expenses or not.	0 = No Childcare Expenses 1 = Childcare Expenses
RPP Deduction	A dummy variable used to indicate whether an individual has a Registered Pension Plan (RPP) deduction or not.	0 = No RPP Deduction 1 = RPP Deduction
RRSP Deduction	A dummy variable used to indicate whether an individual has a Registered Retirement Savings Plan (RRSP) or not.	0 = No RRSP Deduction 1 = RRSP Deduction
Exploration & Devt. Expenses	A dummy variable used to indicate whether an individual has an exploration and development expenses or not.	0 = No Exploration & Development Expenses 1 = Exploration & Development Expenses
CRA Program Factors		
Voluntary Program Preparer	A dummy variable used to indicate whether an individual used the CRA-sponsored Community Volunteer Income Tax Program (CVITP) to prepare his/her tax return or not.	0 = Did not use CVITP 1 = Used CVITP
Tax Preparer Services	A dummy variable used to indicate whether an individual used a tax preparer to prepare his/her tax return or not.	0 = Did not use Tax Preparer 1 = Used Tax Preparer
Filing Method	A dummy variable used to indicate the method an individual used in filing his/her tax return.	0 = Paper 1 = EFILE 2 = TELEFILE 3 = NETFILE
Tax Bracket (%)	A dummy variable used to indicate the tax bracket an individual falls under based on the 2004 Federal Schedule 1.	0 = 16% 1 = 22% 2 = 26% 3 = 29%

## Appendix E—The Multivariate Analysis Process

The following is a brief outline of the methodology used in the multivariate analysis.

### Dataset

The dataset in the multivariate analysis is based on T1 Initial Assessment and Reassessment of individual taxpayers' tax returns. The unit of analysis is tax filers who filed all tax returns from 1996 through to 2002. A balanced panel (longitudinal) dataset is thus constructed where exit and entry of tax filers are deleted.<sup>20</sup> Thus, any taxpayers who did not file their tax returns for any of the selected years after 1996 are deleted. Any new taxpayers who filed their tax returns after 1996 are also deleted from the sample. Each of the selected years, 1996 to 2002, has 18,300,485 observations, that is, the number of taxpayers who filed their tax returns for all the years. This represents an average of 80 percent of all taxpayers who filed their tax returns

<sup>20</sup> The focus of the analysis on a balanced panel is to avoid complications with econometric estimations.

during the study period. The total number of observations for the multivariate analysis is 128,103,395.

### **Logistic Regression Method**

The T1 Initial Assessment and Reassessment data contain demographic and economic variables for all the individual taxpayers. In addition, there are some variables that pertain to the Canada Revenue Agency, for example, whether a taxpayer participated in the Community Volunteer Income Tax Program (CVITP). Given the large number of observations and the fact that some of the variables have missing or not applicable values, dummy variables were used to recode all the variables, and also in some cases to reduce the number of categories (see *Appendix A* for details). Thus, the dependent and independent variables are all categorical, which necessitates the use of a logistic regression for the multivariate analysis. The logistic regression method seeks to model the likelihood of various socioeconomic variables in determining Canadian tax compliance (filing, reporting, and payment) over the study period.

The time series cross-section procedure in SAS was used to arrange the input dataset for the analysis.<sup>21</sup> The time series cross-section procedure requires that the dataset be sorted by cross-section and by time within each cross-section. To achieve this, the input dataset normally contains a variable that identifies the cross-section for each observation, and a variable that identifies the time period for each observation. In this study, the taxpayer's identification number (a recoded social insurance number for confidentiality reasons) was used to identify the cross-section; and the taxation year variable (TAX-YR) to identify the time period. The dataset was sorted by identification number and tax year (1996-2002). The time series cross-section procedure also requires that the time series for each cross-section has the same number of observations and covers the same time range, that is, a balanced panel. The following variables, based on the T1 Returns database, are used in the logistic regressions.

### **Dependent Variables**

The following dependent variables are used in the analysis. For filing compliance, the late filing penalty is used, that is, if a taxpayer has no late filing

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<sup>21</sup> The PROC TSCSREG (Time Series Cross-Section Regression) procedure analyzes a class of linear econometric models that commonly arise when time series and cross-sectional data are combined. The TSCSREG procedure deals with panel data sets that consist of time series observations on each of several cross-sectional units.

penalty assessed, then the taxpayer is filing compliant, but otherwise, he or she is filing noncompliant. For reporting compliance, the underreported tax payable is used, that is, if a taxpayer has no underreported tax payable, then he or she is reporting compliant, but otherwise, he or she is reporting noncompliant. For payment compliance, the arrears interest or installment interest is used, that is, a taxpayer with no arrears interest or installment interest charged is said to be payment compliant, but otherwise, he or she is payment noncompliant.

### **Independent Variables**

The following independent variables are used in the analysis. They are grouped under demographic factors, income factors, deduction factors, and agency factors that facilitate filing of tax returns by taxpayers.

### **Demographic Factors**

These include age group (34 years and under as young, 35 to 54 years as middle-aged, and 55 years and over as older) with young taxpayers as the base or control group; gender (male and female) with female as the base category; marital status (married, common-law, widowed, divorced, separated, single); and region. Married and common-law were combined and used as the base category. There are five regions, namely, Atlantic, Quebec, Ontario, Prairies, and Pacific, in addition to nonresidents.<sup>22</sup> Atlantic Region is the base or control region.

### **Income Factors**

These include main source of income (employment income, self-employment income (business, professional, commission, farming, and fishing income), capital gains and losses, investment income, and rent income); tax-exempt income (workers' compensation benefits, social assistance payments, and net federal supplements); pension income (Old Age Security (OAS), Canada Pension Plan or Quebec Pension Plan (CPP/QPP), and other pensions or superannuation); and registered retirement savings plan (RRSP)

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<sup>22</sup> Atlantic Region consists of Newfoundland, Prince Edward Island, Nova Scotia, and New Brunswick; Quebec Region consists of Quebec; Ontario Region consists of Ontario and Nunavut; Prairies Region consists of Manitoba, Saskatchewan, Alberta, and Northwest Territories; Pacific Region consists of British Columbia and Yukon.

income. The main source of income variable has been re-grouped as wage earners, investment and rent income, capital gains and losses, and self-employment income. Wage earners are the base category. Taxpayers who do not receive tax-exempt income are the base category, while taxpayers who receive neither pension nor RRSP income are the base category.

### **Deduction Factors**

The Income Tax Act allows some eligible deductions from total income in order to calculate net income and taxable income. Some deduction items are included in the analysis. These are deductions for child care expenses, exploration and development expenses, registered pension plan (RPP) contributions, and RRSP contributions. Taxpayers who do not make claims for any of these deductions are used as the base or control group in the analysis.

### **CRA Factors**

These factors include filing method, marginal tax rates, tax preparer services, and participation in the Community Volunteer Income Tax Program (CVITP).

The Canada Revenue Agency (CRA) provides four main methods for taxpayers to file their income tax returns. These are the paper (hardcopy) and the electronic methods (Efile, Telefile, and Netfile). Efile is an electronic service that allows registered tax professionals to send current-year individual tax returns to CRA over the Internet. Telefile is an interactive computer program that allows eligible taxpayers (those with most common types of income tax information like employment income, pension income, interest income, registered pension plan contributions, and charitable donations) to electronically file their tax returns for free using a touch-tone telephone. Netfile allows taxpayers to file their income tax and benefit returns directly to the CRA using the Internet. Netfile is intended for individuals who use commercial software to manage their financial affairs and prepare their tax returns. Netfile is available to most Canadians, but there are some types of tax returns that cannot be submitted electronically. The paper method is the base or control variable for filing methods.

The extra burden of the income tax reporting system in terms of monetary cost to hire an income tax expert might be high for some taxpayers. Realizing this setback, the Canada Revenue Agency initiated in 1971 the Community Volunteer Income Tax Program (CVITP) to assist individu-

als who have low incomes and simple tax situations to file their income tax returns. The program involves volunteers from CRA who share their time, knowledge, and experience by helping taxpayers who need assistance in filing their income tax returns. The program, which was founded in 1971, assists more than 500,000 people annually. A dummy variable is included in the analysis to assess the impact of CVITP on tax compliance.

Some taxpayers make use of the services of a professional tax preparer to complete their tax returns. Several reasons may account for this. They may not have the time or the knowledge to fill the tax return, or be able to afford the services of tax preparer. Some taxpayers might have the wrong notion that a professional tax preparer would assist them to get a tax refund. A dummy variable is included in the analysis to study the impact of tax preparers on tax compliance.

The Income Tax Act provides four marginal tax rates (or marginal tax brackets) based on the 2004 Federal Schedule 1. These marginal tax rates are 16 percent for taxable income of \$35,000 or less; 22 percent for taxable income that is more than \$35,000 but not more than \$70,000; 26 percent for taxable income that is more than \$70,000 but not more than \$113,804; and 29 percent for taxable income that is more than \$113,804. The lowest marginal tax rate (16 percent) is the base or control category.

### **Model Specification**

In order to reduce the potential for multicollinearity, some of the variables are recoded to reduce the number of categories. The following logistic equation for microlevel regressions is used:

### Filing Compliance

$$\text{Logit } (L_i) = \ln(p_i / 1 - p_i) = \alpha_i + \beta x_i + \varepsilon_i$$

Equation (1) is modeling the probability of filing compliance. The dependent variable is late filing penalty, which takes a value of 0 if the taxpayer has no late filing penalty assessed (filing compliant) and a value of 1 if the taxpayer has a late filing penalty assessed (filing noncompliant);  $x_{it}$  are the set of independent or control variables; and  $\varepsilon_{it}$  denotes the error term.

### Reporting Compliance

$$\text{Logit } (L_i) = \ln(p_i / 1 - p_i) = \alpha_i + \beta x_i + \varepsilon_i$$

Equation (2) is modeling the probability of reporting compliance. The dependent variable is underreported tax payable, which takes a value of 0 if the taxpayer has no underreported tax payable (reporting compliant) and a value of 1 if the taxpayer has underreported tax payable (reporting noncompliant);  $x_{it}$  are the set of independent or control variables; and  $\varepsilon_{it}$  denotes the error term.

### Payment Compliance

$$\text{Logit } (L_i) = \ln(p_i / 1 - p_i) = \alpha_i + \beta x_i + \varepsilon_i$$

Equation (3) is modeling the probability of payment compliance. The dependent variable is arrears interest or installment interest, which takes a value of 0 if the taxpayer has no arrears interest or installment interest charged (payment compliant) and a value of 1 if the taxpayer has arrears interest or installment interest charged (payment noncompliant);  $x_{it}$  are the set of independent or control variables; and  $\varepsilon_{it}$  denotes the error term.

# Taxpayer Response to the Recent “Flat Tax” U.K. Capital Gains Tax (CGT) Reform and the Implication for Tax Law Simplification

*Peter Jelfs, Mazars LLP,  
and Andrew Lymer, University of Birmingham*

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All parties with an interest in United Kingdom tax law can apparently agree on one thing: it is complex. Surveys show that the U.K. tax code is now the longest in the world, having recently overtaken India to claim that dubious title. It is equally the case that the amount, as well as the complexity of the legislation, increases every year. Given this situation, and the fact that increasing complexity leads to increasing compliance and administration costs, it is at first sight puzzling that none of these interested parties makes any concerted effort to reverse the trend. The recently attempted capital gain tax (CGT) reforms in the U.K. may offer some clues to this apparent dichotomy.

## U.K. Tax Legislation

The U.K.’s tax legislation primarily consists of a number of Parliamentary Acts and delegated legislation in the form of Statutory Instruments. Finance Acts are passed at least once a year, introducing new legislation and updating or repealing old law. Other Acts are passed as the need arises. Statutory Instruments are introduced throughout the year to enable continual updating of the tax legislation.

Laws relevant to all taxes are often grouped together in book format for use by tax professionals, one of the classic reference works being Tolley’s Tax “Yellow and Orange” handbooks. Aside from the primary and secondary legislation, the handbooks also contain a large amount of material produced by HMRC to provide their interpretation of the law, including:

- Extrastatutory concessions
- E.C. material
- Statements of practice
- Press releases
- Other nonstatutory material



In addition, there are judgements from tax cases which are usually not included in the handbooks but with which a tax practitioner would be expected to be familiar. Some of these decisions will ultimately be incorporated into the legislation.

Lord Wedderburn in his book, *"The Worker and the Law,"* commented "Most people want nothing more from the law than that it should leave them alone." However, this is hardly possible with tax law, which is one of the few branches of law to touch the lives of almost everyone.

## **The Making of Tax Law**

The making of tax law follows an established procedure and usually starts from an initiative from one of the government's executive branches, such as Her Majesty's Revenue and Customs (HMRC) or HM Treasury. There is no statutory requirement for consultation before a Bill is drawn up, although informal discussions with interested parties often occur.

Parliament has no formal role in generating or consulting on proposals until the publication of the Finance Bill, when it is considered by Members of Parliament (MPs) on the Finance Bill Committee. Given the technical nature of the Bill, MPs often rely on interpretation provided by external bodies. The Committee only sits for about 6 weeks due to the time constraints in passing the legislation through Parliament. Backbench MPs are often encouraged not to delay the process, and the House of Lords has no scrutiny role of the Finance Bills.

## **Complexity of the U.K.'s Tax Legislation**

Commentators appear to be unanimous that the U.K.'s tax legislation is complicated. Martin (2005a) is typical when he states that the U.K. tax legislation is "lengthy and intricate but is usually drafted in a dense style that makes it inaccessible to the layman." In a similar vein, Vann describes lengthy tax legislation as "tax rule madness."

## **History of Tax Complexity**

The complaint that the U.K.'s tax legislation is too complex is not new. In 1853, MPs urged William Gladstone, then Chancellor of the Exchequer, to

see that income tax legislation was made intelligible even to those without a legal education. He replied:

“To bring the construction of these laws within the reach of [everyone is] no doubt extremely desirable, but far from being easy ... The nature of property ... and its very complicated forms [render] it almost impossible to deal with it for the purpose of the income tax in a very simple manner.”

By 1981, the Presiding Special Commissioner referred to Gladstone when he said, “The plea today is that it would be some advance if laws of this kind were intelligible to those who *have* received a legal education.”

Very similar comments have also been made in the U.S. The 1927 Report of the Joint Committee on Internal Revenue Taxation stated, “It must be recognised that while a degree of simplification is possible, a simple income tax for businesses is not.”

Both quotations recognize that tax itself is an inherently complex subject. So, it should come as little surprise that tax legislation is also complex.

## **Reasons for Complexity**

Complexity can arise simply from increasing length as the more pages in the tax legislation, the less likely it is that an individual can be familiar and feel comfortable with all of its provisions. On first principles, tax law increases in length due to new tax law enactments each year exceeding the amount of material repealed. Martin (2005) notes that this is in part due to government introducing political policy measures with little pressure or incentive to reform ineffective legislation or to try to simplify the legislation. In his opinion, these have been introduced piecemeal over a long period with little regard to principles which could have created a simple, coherent system.

Complexity can also arise from the language used. The language may be difficult to understand or stylistically poorly drafted. The Tax Law Rewrite project, discussed in detail below, set out to simplify the language of the legislation, but its effectiveness is being called into question.

Martin (2005a) also notes the unique nature of tax law compared to other law in that its primary purpose is not to help taxpayers. As a result, criticism that it can harm business through its complexity can be deflected.

## **Other Relevant Factors**

A number of other factors have been identified as leading to complexity in tax legislation. Some of these were identified by Martin (2005) from a U.K. perspective and Gale (2001) from the U.S.

### **1) Conflict between policy goals**

Gale (2001) states that most people agree that taxes should be simple, fair, conducive to economic prosperity, and enforceable, but cannot agree on the relative importance of each goal. When governments implement policy, it will therefore represent a balance between the goals, and legislative complexity is a consequence of trying to achieve this.

It is well-known that more equitable or fairer taxes usually conflict with tax simplification. Tax burdens are often tailored via legislation to the circumstances of individuals, improving equity but increasing overall complexity of the tax system by increasing the length and complexity of the legislation. In addition, tax rates that vary with individual characteristics create opportunities for tax planning and avoidance, which may in turn require the passing of antiavoidance legislation.

### **2) Fiscal incentives**

Successive governments have shown a desire to promote or discourage certain types of behavior among taxpayers by providing tax or fiscal incentives. However, these targeted subsidies often increase complexity by creating more distinctions between taxpayers and sources or uses of income.

Academic literature has widely analyzed this area and generally concluded that acting in a particular way for tax reasons impairs economic efficiency, distorting the market and giving rise to costs known as the “excess burden of taxation,” which arises from actions that would not otherwise have been performed.

In general, taxes with a wide base are less distorting and more efficient than those with a narrow base. In some situations, the market is inefficient, an example being a polluter maximizing profits while imposing remediation costs on the community. Governments often use tax as a policy instrument to discourage such behavior, or to encourage actions thought to benefit the community, such as enhanced tax relief for research and development expenditure.

Martin (2005a) considers incentives based on this premise to be likely to produce unsatisfactory results, along with situations where the basis for providing incentives is unclear in itself, giving examples of incentives introduced and subsequently withdrawn, such as profit-related pay and the business expansion scheme, both victims of unwanted tax avoidance schemes. Expanding on his observations, it is evident that, in order to prevent such abuse, special reliefs become so full of conditions or require such extensive redrafting that they greatly add to the complexity of tax legislation.

### 3) Prevention of tax avoidance

Tax avoidance is the arrangement of one's affairs to pay the minimum amount of tax, as spelled out by Lord Tomlin in the well-known case of *Duke of Westminster vs. CIR*: "Every man is entitled if he can to order his affairs so that the tax attaching under the appropriate Acts is less than it otherwise would be ... However unappreciative the Commissioners of Inland Revenue or his fellow taxpayers may be of his ingenuity, he cannot be compelled to pay an increased tax." It is within the letter, if not always the spirit, of the law, unlike tax evasion.

As the U.K.'s tax legislation has grown more complex, tax advisers have increasingly exploited loopholes to create complex avoidance schemes. Loopholes are often created by the specific statutory language, and HMRC is highly likely to challenge any such scheme in the courts. Where the taxpayer is successful, government will act to reduce revenue loss in areas where significant avoidance occurs. Taxpayers and their advisers will then seek new opportunities for avoidance. This creates a cycle of increased complexity in both tax laws and avoidance strategies.

Some commentators hold the view that tax advisers are responsible for the generation of such legislation by the avoidance schemes they devise and promote to business. Others consider the role of legislators who have added successive layers of antiavoidance legislation by "tinkering" with the system to be more significant. One such example identified by PwC and the World Bank (2006) was of a single transaction of borrowing in the U.K., which may require up to six sections of antiavoidance legislation or case law to be considered before treatment for tax purposes may be ascertained, namely:

- s209 ICTA 1988—whether interest is dependent on the results of the business and hence a distribution
- p13 Sch9A FA1996—loans for unallowable purposes
- Sch28AA ICTA 1988—thin capitalization and transfer pricing
- s24-31 & Sch3 FA(no.2) 2005—antiarbitrage provisions
- s349 ICTA 1988 and SI 1970/488—treaty clearance from U.K. 20-percent withholding tax
- relevant case law, e.g., *WT Ramsay*, *Furniss vs. Dawson*

Possibly the most common form of avoidance is the manipulation of tax affairs to take advantage of other provisions of tax law. The more tax law in existence, the more such opportunities exist. New tax law presents new opportunities to move profits to a lower rate of tax. This may involve artificial steps or even lead to tax evasion. Antiavoidance legislation is required to prevent such schemes from succeeding, but is usually particularly complex and obscure as a result of the complex nature of its target.

In the past, legislation to block such schemes was passed on an individual scheme basis. More recently, HMRC has tried to move toward “principle-based” antiavoidance legislation, such as the recent “disguised interest” legislation. It is designed to repeal piecemeal legislation by identifying the avoidance principle at stake, removing length and complexity from the legislation. However, such legislation is proving very difficult to draft satisfactorily, throwing into question whether the predicted benefits will ever materialize.

A piece of research carried out on behalf of the Tax Justice Network (2007) looked at the purpose of all 1,503 pages of the Finance Acts from 2004 to 2006. While the purpose of legislation is often open to debate, the report nonetheless shows the importance of antiavoidance provisions in adding length to the legislation. It found that 48 pages dealt with routine issues like tax rates, 841 were government-driven initiatives, and 614 (41 percent) were antiavoidance measures.

#### **4) Tax Law Rewrite project**

The Tax Law Rewrite project was initiated to rewrite tax law in plain, modern English but without changing the underlying law. However, the implication that the project is meant to reduce the overall complexity of the tax legislation is probably misplaced. Simplification was not a remit of the project as the rewritten Acts had to be fast-tracked through Parliament. Even

so, some of the new wording does amount to a change in tax law which may have repercussions.

PwC and the World Bank (2006) claim that the project is responsible for a 50-percent increase in length of the rewritten provisions and note that, at the date of the report, less than half of U.K. tax law had been rewritten. Other criticisms of the usefulness of the project have included the fact that the general public is unlikely to want to read tax law regardless of the language’s clarity, and that many tax professionals were content with the old terminology which had been defined by the courts.

In 1995, Avery Jones (subsequent chairman of the IFS Tax Law Review Committee) commented concerning the new Tax Law Rewrite project, “My real objection to rewriting is that I do not find much of a connection between the causes [of complexity] and the proposed solution. The solution seems to me to be an implied acceptance that nothing can be done to remove the real causes of complexity which are deeply rooted in our whole legal culture.”

This observation was largely proved in that, as Gammie (2007) states, “Expressing concepts in plain English does nothing to simplify the concepts themselves ... complexity of language has been replaced by the complexity of legislative volume as more words (albeit simpler ones) have been required to retain precision.” The worth of the project remains a subject for keen debate.

## **Effects of Tax Complexity and Responses**

Tax legislation in both the U.K. and the United States continues to increase in length. By 2008, Tolley’s Yellow Tax Handbook, containing the U.K. primary and secondary direct tax legislation, could only be fitted on to 10,134 pages by using a smaller format text than the previous year, up from 5,952 pages as recently as 2001.

Truman’s case study into the effect of Finance Act 2008 on the length of the U.K. tax legislation revealed the following:

- Abolition of taper relief removed between 8,000 and 9,000 words, but these remain in Tolley’s Yellow Tax Handbook to enable taxpayers to calculate their liability in future years, giving the illusion of failure to simplify.

- The introduction of entrepreneurs' relief to appease the outcry from taxpayers and advisers over the abolition of taper relief will add back about half of the words removed above.
- The changes in residence and domicile laws will add about 5,000 words to the legislation.
- Income-shifting provisions of 700 words provide a good example of the worst kind of "legislation by guidance." The legislation is vague and wide-reaching and required over 9,000 words of interpretative guidance.
- The major causes of extra legislation often concern a very small number of taxpayers, such as antiavoidance legislation for insurance companies.

Truman describes the efforts to reduce legislative complexity as "a rout" and repeats his suggestion from the 2007 Hardman Lecture that government needs to set a target of legislative reduction within a certain number of years for any realistic hope of simplification occurring. He acknowledges that his suggestions of a 25-percent reduction in length within 5 years currently show little sign of being achieved.

### **Taxpayer Desire for Simplification**

PwC and the World Bank (2006) highlight the unfavorable consequences of large volumes of legislation making it impossible for tax advisers in industry or practice to read or understand all relevant legislation and having to rely on more specialists, including those at HMRC. As a result, large to medium companies may have to make a decision whether obtaining tax advice is of benefit using a cost/benefit analysis.

Their report concludes that increasing complexity probably leads to lower international competitiveness, and voluminous legislation reaches a point where the level of compliance drops through ignorance rather than evasion. As a result, business leaders and their representatives often make public their concerns over the complexity of tax legislation and the negative effect this has on running their business, chiefly the time and cost of compliance, both of which increase with increasing complexity.

One such study was the Tenon Forum Think Tank's 2005 report which interviewed directors of small and medium-sized businesses in the

U.K. 77 percent claimed the U.K. tax system was too complicated, and 73 percent wanted a flat rate tax scheme. The Think Tank was divided on whether this was a plea for simplification, as some members felt that lack of understanding of a flat tax meant it was incorrectly being positioned as a solution to complexity. They also raised the issue that a simple tax system could easily become complicated very quickly, and this size of company often benefits from targeted exemptions, a classic source of legislative complexity. However, the message from the study was apparently clear in that U.K. businesses want simplification of the tax system and legislation, although, as discussed below with the recent CGT reforms, apparently not at the expense of potentially higher rates of tax.

### **Government’s Inability to Reduce Complexity**

While successive U.K. governments have often expressed their desire to reduce complexity of the tax legislation, the trend is inexorably toward greater length and complexity.

Gale (2001) points out that the simplest tax system would be a consumption tax at a flat rate with universal deductions, exemptions, and credits and withheld at source. However, the U.K. system bears no resemblance to this model as a progressive income tax with targeted exemptions and withholding for a small number of income types.

Simplification of the U.K. tax system remains a prominent topic, and leading figures still pronounce on the subject. The incoming 2008 President of the Chartered Institute of Taxation (CIOT) highlighted it as one of the themes of his presidential year, and the government reaffirmed its “commitment to tax simplification” at various times, including the 2007 Prebudget Report. The new Chancellor of the Exchequer, in his first speech in July 2007, stated, “We must continue to simplify the tax system wherever we can.” Continuation of a process, however, implies that it has already started, and there is little evidence of simplification occurring before or after his speech.

Indeed, government pronouncements on the issue have a long history. Even after the first Income Tax Act of 1799, the 152 pages of the Act were proving sufficiently complex for the government to publish a guide entitled “A Plain Short and Easy Description of the Different Clauses of the Income Tax so as To Render it Familiar to the Meanest Capacity.”



## Difficulties in Comparing and Measuring Complexity

Apart from the difficulty of defining the concept of legislative complexity, it is not a simple matter to attempt to measure it, given the lack of obvious comparisons. Comparison with the current system appears on first principles to be a reasonable choice.

A study performed by PwC LLP and the World Bank (Paying Taxes—The Global Picture, 2006) compared the GDP of a number of countries with their tax administration burdens, as measured by the number of pages of primary federal tax legislation. The results are shown below:

Country	GDP ranking	GDP \$m	Number of pages (ranking)
U.S.	1	11,711,834	5,100(5)
Japan	2	4,622,771	7,200(4)
Germany	3	2,740,551	1,700(10)
U.K.	4	2,124,385	8,300(2)
France	5	2,046,646	1,300(13)
China and Hong Kong	6	1,931,710	2,000(9)
Italy	7	1,677,834	3,500(7)
Spain	8	1,039,927	530(17)
Canada	9	977,968	2,440(8)
India	10	691,163	9,000(1)
Korea	11	679,674	4,760(6)
Mexico	12	676,497	1,600(12)
Australia	13	637,327	7,750(3)
Brazil	14	603,973	500(18)
Russia	15	581,447	700(=15)
Netherlands	16	578,979	1,640(11)
Switzerland	17	357,542	300(20)
Belgium	18	352,312	830(14)
Sweden	19	346,412	700(=15)
Turkey	20	302,786	350(19)

The report acknowledges that certain countries levy taxes at state and local levels. In these cases, the number of pages data above are likely to be severely understated.

The authors make two key conclusions: the volume of a country's primary federal tax legislation is not directly proportional to its economic size, and the volume of legislation is increasing. It is generally accepted that the U.K.'s tax legislation is now the longest in the world, having overtaken India since the report was published. So, on a first viewing, it might seem that the U.K. has a disproportionately complex and lengthy tax legislation.

However, in a later study, the authors claimed that this work was only intended to stimulate debate and not to represent an accurate comparison of

complexity. Factors such as print size were not taken into account, which, taken with the possible understatement mentioned above, casts considerable doubt on the usefulness of the above data as a comparison study. It is somewhat surprising that the results of this study were not linked to those of another by the same authors comparing compliance times for a range of countries to see if any connection with the length of legislation existed.

### **Tax Law Simplification Strategies**

Strategies other than “flat tax” are regularly put forward to attempt to reverse the growth of the tax legislation’s complexity. However, only simplifying the language of tax law will not address the underlying complexity, which arises from different demands made of the tax system and the constraints under which it operates.

The 1994 Tax Law Review Committee’s final report listed three types of complexity—linguistic, policy, and compliance—which would all need addressing by comprehensive reform. It also stated, “Without policy changes, the benefits from rewriting tax legislation are limited.” Similar sentiments were expressed by the Tax Law Improvement Project in Australia.

Martin (2005) considers that three-quarters or more of tax law could be removed with a commitment to simplification. The principles behind this strategy would include:

- Refocusing on the primary objective of direct tax to identify and tax profit, using accounting profit as the starting point for calculating taxable profit. Any departures from accounting profits should only be made with reference to clear principles. All profits would be taxed in the same way and the schedular system abolished.
- The approach should be purposive, with detailed rules replaced with statements of underlying principles, and backed up by wider use of rulings from HMRC both before and after the transaction.
- Reviewing to ensure all parts fit coherently, including combining and aligning tax rules currently used in different situations.

Martin (2005) considers that simplification is possible given political will, although he acknowledges that not everyone is so optimistic, pointing to failed simplification programs in Australia and New Zealand. Efforts to this end should be appreciated as long as the sense

of direction was clear, although both taxpayer and government could lose out under individual simplification proposals. He notes that a number of sections of tax law would have to remain, such as group relief, to prevent companies having to distort their group structures to offset any loss as it arises, and rollover relief to prevent a disincentive to replace business assets.

In addition, simpler taxes would be unlikely to remove the desire of taxpayers to undertake tax avoidance. They would probably require simpler antiavoidance laws, but these would still be required in such areas as diverting profits overseas to lower tax jurisdictions and disguising interest as a tax-free dividend from a U.K. company.

Martin (2005a) notes that his proposals for simplification can be achieved without altering tax rates. He states, "The question of whether simplifying tax and reducing tax rates are connected, or whether they are independent objectives, needs to be properly analyzed," noting that simplification has its limits, and review of existing law is more likely to establish them rather than discarding all current law and starting again.

## **“Flat Tax”**

The history of flat tax falls into two distinct phases. The first phase was the development of a theoretical tax system by American academics throughout the 1980s and 1990s, the most dominant model being the Hall Rabushka (HR) flat tax. The second phase was the actual introduction of tax systems known as “flat taxes” from the early 1990s to date, pioneered by a number of Eastern European countries and henceforth designated “EE flat tax.”

It is vital to bear in mind that the flat taxes of the second phase bear little relation to the HR flat tax or its associated theoretical models. It is obvious that certain commentators do not appreciate this fact, leading to a general lack of coherence in the flat tax debate which has been described by Keen et al. (2006) as “marked more by rhetoric and assertion than by analysis and evidence.” Much of the argument to date has focused on such issues as the reduction in marginal rates of tax paid by the highest earning individuals on the introduction of a flat tax system, and whether overall tax revenue would decrease. Other aspects of the “flatness” of flat tax, including its proposed simplifying features, have been subject to little analysis.

## Definitions of “Flat Tax”

Generic definitions of flat tax may apply to both HR and EE flat tax systems. A short but useful description was provided by the U.K. Treasury in its 2005 report, which defined a flat tax as “a tax structure that has a single positive marginal tax rate.”

In the U.S., the General Accounting Office (1998) prepared a report which noted that the term “flat tax” could refer to any system with a single tax rate using either a consumption or income base, but chose the HR flat tax to analyze. The Joint Committee on Taxation produced a report in 2005 discussing issues relating to flat tax proposals, which considered a flat tax to be “any tax system with only one marginal tax rate [above zero] and a broad base.” Many flat tax systems, both theoretical and actual, substantially alter the existing tax base, a point deemed important enough to be included in this generic definition of a flat tax.

A final definition is provided by Weisbach (2000) who considered the design and implementation of the HR flat tax. He identified immediately the problem of defining the term “flat tax” and gave a generic definition of “any tax that has a proportional rather than progressive rate structure.”

## Hall-Rabushka (HR) Flat Tax

The first use of the term “flat tax” was coined in the work of two American academics, Robert Hall and Alvin Rabushka of the Hoover Institution, Stanford University. Their proposed flat tax system was published in the *Wall Street Journal* in 1981 and expanded in their book, *The Flat Tax* (1995). The HR flat tax system was put into a draft legislative form by Richard Armey and Richard Shelby and given political prominence by a number of American politicians, most notably the Republican Steve Forbes, who used its principles in his bid for nomination as his party’s presidential candidate.

The HR flat tax is a theoretical model tax system designed to replace the American tax system. Its publication originally stimulated debate in the U.S. throughout the 1980s and 1990s and reached Europe during this second decade, especially following the novel tax reforms seen in Eastern European countries.

In practice, no country has adopted the HR flat tax in its pure form, and it remains a theoretical model only. None of the countries that have introduced tax reforms described by some as “flat taxes” has altered its tax base

from income to consumption, probably the single most significant difference between the HR flat tax and the current U.K. and U.S. tax systems. All countries which have introduced flat taxes already had a consumption tax in the form of a value added tax (VAT), a tax which does not exist in the U.S.

### **Definition**

A succinct definition of the HR flat tax is provided by the Congressional Research Service of the Library of Congress (2005), which describes it as “a wage tax and a cash-flow tax on business (a wage tax is a tax only on salaries and wages; a cash-flow tax is generally a tax on gross receipts minus all outlays)... It is essentially a modified VAT, with wages and pensions subtracted from the VAT base and taxed at the individual level.” Both taxes are levied at the same, single, “flat” rate, with a tax-free personal allowance for individuals.

Businesses pay tax on the difference between their gross sales and the sum of wages, pension contributions, and purchases from other businesses, including the cost of materials, services, and capital purchases. Individuals pay tax on their wages (including benefits in kind) and pension disbursements, less personal exemptions.

### **Eastern European (EE) Flat Taxes**

During the last 15 years, a number of Eastern European countries have reformed their tax systems by introducing regimes which have collectively become known as “flat taxes.” Similar systems had already been introduced in certain countries, including Hong Kong (1947), Jersey (1940), and Guernsey (1960), but the more recent adopters may be grouped conveniently into two “waves.” The first wave commenced with Estonia in 1994 and the second with Russia in 2001. Although flat taxes have been debated keenly in the U.K. and the rest of Western Europe, none of these countries has yet adopted similar systems, so that the results of the new tax systems have been analyzed with some interest.

The EE flat tax systems recently introduced vary widely in design. Their only common feature is that their tax on labor income may be described in symbolic form, as per Keen et al. (2006):

$$T_F(Y) = \max[t.(Y-A_F), 0]$$

where:

$T_F(Y)$  is the tax liability on income of  $Y$ ,

$t$  is the single marginal rate of tax (the “flat” rate), and

$A_F$  is a tax-free allowance given to the taxpayer.

Keen’s formula still meets the U.K. Treasury’s generic definition of a flat tax.

The flat rate used to calculate both taxes may be the same, as under the HR flat tax, but, in practice, this is unusual among the EE flat taxes. Keen’s analysis of EE flat taxes only considers tax systems that follow the above equation for PIT, incorporating as it does a personal allowance which is an important design component of these real-life flat taxes.

## **Potential Simplifications of a Flat Tax**

Supporters of flat taxes, both HR and EE varieties, have long held that significant simplification of the current tax system would occur should their favored system be implemented. Indeed, even opponents have often implicitly accepted the claim, while sometimes questioning the extent of the impact of their introduction.

HR flat tax proponents such as Armey (1996) routinely claim that compliance costs would be cut were it introduced. The claim of its creators that individuals and companies would be able to file their tax returns on a postcard-sized form, and the hint that lengthy tax legislation can be swept away by a simple law, were important factors in its initial appeal. Superficially, the abolition of a number of exemptions and the reduction in the number of tax rates appear powerful simplifying features.

A typical view of flat tax supporters is that of Davidson, who agrees with Mitchell (1998) that “two of Mitchell’s benefits are unambiguously correct: a flat tax is simple and honest.” The McLeod Report (2001), a study of New Zealand’s tax systems, concluded that a proportional income tax (or flat tax) would “be simple and resolve several complex taxation issues.”

## **Limitations of Flat Tax Simplification**

Martin (2005) considered the effect of a flat tax in the context of EE flat taxes on U.K. tax legislation. He agreed that such a flat tax would remove many of the reliefs that cause legislative complexity. However, he points out that abolishing all of the reliefs noted by Teather (2005) would be likely to repeal only 1 percent or 2 percent of current direct tax law, doing little to remove complexity generated by length.

Martin (2005) concludes that “simplification of the tax system is ultimately a matter of political will and conviction. An attractive panacea—such as the flat tax—will not in itself solve the problem of complexity.” He notes that supporters of flat taxes and their potential for simplifying the U.K. tax system should beware of the danger identified by Mencken that “for every complex problem, there is a solution that is simple, neat, and wrong.”

## **Analysis of the EE Flat Taxes**

Keen et al. (2006) undertook a detailed analysis of the EE flat tax systems. There is already a large amount of academic literature on behavioral and overall tax revenue effects of changing tax rates, issues which, as already noted, have been prominent in the flat tax debate. However, there has been little analysis of the effect of “flatness” per se, although, as Keen et al. (2006) point out, “it is difficult (perhaps impossible) to disentangle these empirically from those of the accompanying tax increases or reductions that movement to a flat tax implies.”

Keen et al. (2006) note a few obvious simplifications arising from the flatness of tax rates, including reducing incentives to reallocate income, making withholding simpler, and simplifying income averaging. However, the tax-free allowance means that none of these problems disappears since there are two marginal rates (the flat rate and zero). PAYE would still be problematic for individuals with more than one job to ensure that the tax-free allowance is only claimed once. Income averaging is a negligible part of the overall complexity burden.

More importantly, it is generally agreed that the rate structure is not the main source of complexity in a tax system. Factors to which complexity can largely be attributed include difficulties in defining the tax base due to legislative exemptions and special treatments which may be disputed at length between taxpayer and tax authority.

Overall, Keen et al. (2006) conclude that there is little tangible evidence for flat tax simplification solely due to their property of “flatness.”

This was not a surprising observation as simply changing a tax rate is predicted to have little effect on the much deeper, inherent complexity seen in real life tax systems. The summary of the U.K. Treasury agrees with this viewpoint that “having a progressive rate schedule with a reasonably low number of income brackets is probably not much more complex than having a single rate from an administrative point of view.” Some indirect survey evidence from Ivanova et al. (2005) in Russia did not suggest that individual taxpayers thought the tax system much simpler post reform.

### **Fundamental Problems of Tax Simplification**

Gale’s (2001) conclusion effectively sums up the difficulties associated with tax simplification, both generically and linked to the “flat tax”:

“As a purely technical matter, tax complexity and tax evasion can be reduced, and tax administration can be made more just and efficient. As a political and policy matter, however, making these improvements has proven quite difficult. Efforts to simplify the tax system typically run up against conflict with other tax policy goals, political factors, taxpayers’ efforts to avoid and evade taxes, and revenue requirements. Each of these factors tends to shape the base, credits, deductions, rate structure, and administrative aspects of the tax system in ways that raise complexity. Efforts to reduce evasion sometimes run into similar problems.

To the extent that simplicity is a goal of tax reform, many improvements could be made within the existing system. Pure versions of both the national retail sales tax and the flat tax could be vastly simpler than even an improved income tax. But realistic versions of the flat tax and especially the sales tax would require tax rates much higher than advertised by their proponents. These higher rates complicate tax compliance and enforcement. The sales tax would face potentially serious problems with enforceability and political pressure for exemptions. The flat tax would face the same political pressures, and, while enforceability is not a major issue, the tax would likely become significantly more complex than currently proposed.”



## **CGT Reform in the U.K.**

On October 9, 2007, the U.K. Chancellor, Alistair Darling, announced an unexpected reform to the U.K. CGT system, effectively proposing a flat tax rate of 18 percent on capital gains for individuals and unincorporated businesses. The proposal was without doubt a simplifying one as it removed the need for complex calculations of taper relief, which reduced a capital gain depending on the number of years of ownership of the asset, as well as whether the asset had been used for “business” purposes. The result was a range of effective CGT rates from 5 percent to 40 percent.

Taper relief was originally introduced by the incoming Labor government to encourage entrepreneurship and create jobs. Endacott (2008) notes that the government was influenced by U.S. thinking, including a 1997 study of the venture capital industry by Gompers and Lerner which highlighted a negative correlation between a CGT rate and the magnitude of venture capital investment. However, the report noted that the tax rate was only one of several factors to consider and described it as a “blunt instrument.”

However, the legislative provisions for taper relief were lengthy and complex, and, when they were described by financial journalist Martin Wolf as “a mess,” few would have disagreed. The concept of a “business asset” was chosen to promote active risk-taking rather than passive investment, but its definition was complex and often apparently arbitrary. The far more generous relief that such assets attracted compared to “non-business assets” was in some cases very hard to justify. In addition, the increasing relief depending on the length of time the asset was held was criticized by some as introducing arbitrary time limits to distort investment decisions.

## **“Flat Tax” Connection**

It was somewhat ironic that the U.K. government introduced the proposed reforms using some of the rhetoric of supporters of “flat tax.” While the U.S. has a long and distinguished history of flat tax debate, the concept is much newer in the U.K. and has met with little favor to date in government circles. HM Treasury produced a critical report in 2005, mainly on equity grounds, and the debate largely subsided.

Admittedly, the proposed U.K. CGT reforms bore little resemblance to the original flat tax model of Hall and Rabushka and its subsequent

development in the U.S. Under their model, capital gains are not taxed at all. However, useful comparisons can still be made as to how the flatness of a tax rate impacts on the simplicity of the underlying tax system.

In addition, it should be noted that the 2005 Treasury report highlighted the fact that no flat tax system had been introduced in an economy similar to the U.K., so that any conclusions about its effectiveness would be largely speculative. While CGT is a minor tax in terms of the revenue it raises, such a comment is now a less valid one.

## **Taxpayer Response**

Given the purported desire for tax simplification in the U.K., it might have been expected that this proposal would have met with a broadly favorable response from taxpayers and their advisers. However, the exact opposite occurred. The reforms were bitterly denounced by representatives of small business, principally on the basis that, under the old system, many of their constituents would have expected to pay a rate of no more than 10 percent on disposal of shares in their companies. Emotive phrases such as "80-percent tax rise" succeeded in attracting much media attention. Simplification proved to be a principle readily sacrificed to avoid even a modest tax increase, with the General Secretary of the Trades Union Congress describing the Chancellor as having "called the bluff of those business leaders who have long called for tax simplicity."

Other arguments from the reform's opponents included the need for stability in a tax system, the damage to the country's entrepreneurial culture with the prospect of wealth generators choosing to set up business in lower tax jurisdictions, and the prospect of a "finance gap," deterring external investors from financially supporting small businesses.

The behavior of tax practitioners in response to the reform was predictable. After initial complaints that the reforms had not undergone a proper consultation process, a number of schemes were devised for clients based on draft contracts of sale dated before April 6, 2008 (the date the reforms took effect) to take advantage of the lower tax rates under the previous regime. This pragmatic approach was demonstrated in the actions of the prominent tax consultant Kevin Slevin who was quick to denounce the reform as "the Darling Raid on small businesses." Yet, by July 17, 2008, he had written the first book to market on the subject of entrepreneurs' relief, available for sale to fellow practitioners.

## **Government Reaction**

In the event, the government gave in to demands and introduced further legislation known as entrepreneur's relief, based on repealed legislation known as "retirement relief." This effectively gave taxpayers the ability to continue to pay only 10 percent on the first £1 million of capital gains, with any excess taxed at 18 percent.

From a simplification point of view, this response was disastrous, leading to greater volume of tax law and maintaining the complexity of calculating a capital gain. As with taper relief, with which it shares a number of similarities while not providing as generous a relief, entrepreneurs' relief creates distortions and influences investment behavior. Endacott (2008) points out that the relief introduces substantial complexity for the small amount of relief it provides. The Chartered Institute of Taxation, the representative body for chartered tax advisers, noted that retirement relief provisions, which formed the basis for entrepreneurs' relief, contained elements that were "notoriously difficult to apply and, in practice, gave rise to a number of problems for both taxpayers and HMRC."

## **Conclusions**

In summary, the recent experiences of the CGT reforms provide evidence of the difficulty any government would face in trying to introduce significant simplification to the U.K. tax system, be it by flat tax or any other means, given the response to proposals to modify one minor tax. They also show that, even if a simple tax system could be introduced, the pressures for special interest groups may be too much for government to ignore, leading to further legislation and increased complexity.

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## **The Tax Behavior of Corporations**

**Tomohara ♦ Lee ♦ Lee**

**Freedman ♦ Loomer ♦ Vella**

## Does FIN 48 Benefit the Tax Authorities through an Increase in Taxpayer Compliance?

*Akinori Tomohara, Aoyama Gakuin University; Ho Jin Lee, Internal Revenue Service; and Sangjik Lee, Hankuk University of Foreign Studies*

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Recent financial guidelines and regulations focus on the importance of increasing transparency in financial reporting of companies to protect investors. Financial Accounting Standards Board (FASB) Statement No. 109 (FASB 109), “Accounting Uncertainty in Income Taxes,” and its interpretation by FASB, Financial Interpretation No. 48 (FIN 48), adopted in December 2006, is an example of one such regulation. Statements of Financial Accounting Standards (SFAS) 109, “Accounting for Income Taxes,” released in 1992, provide the principle of deriving tax costs in financial statements. FASB 109 and FIN 48 complement SFAS 109 and provide guidelines on calculating tax costs under uncertain tax positions. Companies are often uncertain about the tax authorities’ acceptance of their tax calculations. These guidelines assist in reporting the expected acceptance of controversial tax positions by tax authorities.

Prior to FIN 48, the public was concerned with companies’ possible underestimation of their taxes, specifically when companies are uncertain whether the tax authorities accept their tax positions.<sup>1</sup> Since a positive probability exists that an uncertain tax position goes unexamined, companies have incentives to use aggressive tax planning to minimize taxes. Given a tax examination, the IRS negotiates with the taxpayer using various formal and informal processes to correct the current taxes. Even if the company’s uncertain tax position is corrected through the process, the company generally pays at most the difference in the tax calculation, interest, and possibly penalties. Most of this should have been initially paid by the company. This is especially true for U.S. Federal taxes, as most taxpayers are generally not audited and only subject to the “tax audit lottery.”<sup>2</sup>

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<sup>1</sup> For example, Poterba et al. (2007) investigate the deferred tax positions of large U.S. companies during 1993, essentially the first year of implementation of SFAS109, and 2004. Using panel data on deferred tax assets (DTAs) and deferred tax liabilities (DTLs) of 100 FORTUNE 50 companies, they find that a higher proportion of companies have a net DTL rather than a DTA. Their analysis also shows that the aggregate value of deferred tax liabilities is larger than that of deferred tax assets in the U.S. corporate sector.

<sup>2</sup> Only 0.8 percent for companies with assets less than \$250 thousand were subject to IRS examinations in Fiscal year 2007 (IRS, 2008).

Financial statements may not reflect the actual financial situation of a company. Plesko (2007) finds that some companies report significant financial statement income without tax consequences and use tax planning without being subject to financial reporting costs. Given the incentives to use aggressive tax planning, companies need to allocate money to a tax reserve for tax contingencies.<sup>3</sup> A tax reserve is essentially equal to the company's expectation of additional tax expenses after the finalization of a tax audit. Increases in tax reserves reduce current assets and/or income. Blouin and Tuna (2007) show that companies used tax reserves as "earnings smoothing" tools prior to FIN 48. Companies increased their tax reserves when business was booming to reduce expectations on the company's stock and reduced tax reserves when business was depressed to increase earnings. In addition, companies disclosed nonrecurring income components strategically to highlight good news. In order to avoid misleading investors, FIN 48 was implemented to require companies to standardize their tax-related disclosures to increase the accuracy of company financial statements.

Policymakers are interested in the effects of adopting FIN 48 as it may affect tax revenues. Some researchers believe that FIN 48 will increase companies' taxes.<sup>4</sup> Under FIN 48, companies cannot record a tax benefit of an uncertain tax position if the probability of successfully defending the tax position against a tax authority is not "more-likely-than-not" or not above 50.0 percent. Among tax practitioners, this threshold is considered to be higher than the one used previously. Additionally, FIN 48 requires companies to publicly disclose additional information regarding their tax positions. Tax authorities gain access to more detailed information regarding tax positions of companies with the implementation of FIN 48. This additional information reduces the possible asymmetry in information between the company and the tax authority and reduces the tax authorities' costs in selecting companies for tax audits. While the literature discusses FIN 48's effects on financial reporting strategies, its effect on tax revenues is not yet understood and explored.<sup>5</sup>

<sup>3</sup> Tax contingencies are reserves for uncertain tax positions. Tax contingencies are also known as tax cushion, tax exposures, reserve for uncertain tax positions, and contingent reserves, etc. While there are other types of tax reserves, including reserves for current taxes and reserves for deferred taxes, for the purposes of this paper, we use the term tax reserves, specifically, for reserves for tax contingencies.

<sup>4</sup> Readers are referred to Blouin et al. (2007) for the argument.

<sup>5</sup> The literature analyzes the effect of FIN 48 on tax reserves. Blouin et al. (2007) find that tax reserve reductions were more common for large companies but not small companies during 2005 through the first quarter of 2007. The authors infer that their findings support the necessity of FIN 48 as a conformity tool. Blouin et al. (2008) examine if companies with excess tax reserves were concerned with the increase in the probability of a tax audit after FIN 48. The authors hypothesized that this anticipation of FIN 48 may have altered companies' strategies regarding tax reserves prior to its implementation. Blouin et al. (2008) show that companies with excess tax reserves tend to decrease their reserves prior to FIN 48 adoption, while other companies waited until adoption to increase tax reserves. The literature shows that the effects of FIN 48 on companies' strategies vary by specific company characteristics, such as company size and tax reserve levels.



We examine the effects of FIN 48 on tax revenues using the S&P Compustat North America database. The sample includes 78,061 observations on 9,465 U.S. companies from 1989 through 2008. Our analysis compares companies' taxes as reported on their financial statements before and after the implementation of FIN 48 with the use of a reduced-form empirical model. We also explore the possible differential effects by company size as companies of different sizes face different tax audit probabilities, and resources to defend tax positions, thus, may behave differently.

Our analysis shows that FIN 48 appears to have had a statistically significant effect on U.S. companies' taxes only in the year of implementation and not for the subsequent year. On average, U.S. companies increased their U.S. Federal taxes with their implementation of FIN 48. As a proportion of their U.S. Federal taxes, smaller companies increased their tax outlays by more than larger companies. A combination of the companies' differing access to resources for tax planning strategies, tax audit defense, and the tax audit lottery may explain this result. As the company size decreases, the resources available to implement and defend aggressive tax planning strategies generally fall as a proportion of tax savings. However, smaller companies generally have a less of a likelihood of being audited compared with larger companies. Very large multinational companies have sophisticated tax planning strategies to reduce their overall effective tax rates. Also, these companies have relatively more resources to defend their positions in tax examinations. However, these companies have a larger probability of being audited.

Prior to FIN 48, smaller companies may have depended more heavily on the tax audit lottery and the asymmetric information advantage. FIN 48 reduces the information advantage enjoyed by these smaller companies. Therefore, smaller companies may have been affected more than larger companies.

The remainder of the paper is organized as follows. It overviews FIN 48 and the data used for analysis. It describes an empirical model for studying the effect of FIN 48 on tax revenues. Results of the analysis are presented, and the paper concludes.

### **Effects of FIN 48 Disclosures**

In July 2006, the FASB released Financial Interpretation No. 48 entitled "Accounting for Uncertainty in Income Taxes—An Interpretation of FASB Statement 109 FIN 48." As FASB 109 did not provide specific guidance on addressing tax uncertainties, FIN 48 provides companies with these methods and guidelines. Prior to FIN 48, there were minimal standards in accounting

for uncertain tax positions in the companies' financial statements. Companies adopted different practices which resulted in the use of inconsistent criteria to recognize, derecognize, and measure benefits related to income taxes. This affected the public's ability to compare the companies' reported tax assets and liabilities in their financial statements. FIN 48 was issued to standardize this process by reducing the companies' flexibility in accounting for uncertain tax positions.

FIN 48 increases disclosure, transparency, and comparability for tax authorities and investors. As such, these FIN 48 disclosures received much attention. The primary concern is its effect on tax audits since the tax authorities are monitoring these disclosures.<sup>6</sup> While tax examination teams are generally not allowed to request tax work papers, an IRS senior adviser on transfer pricing stated that examination teams may utilize the FIN 48 disclosures themselves in selecting issues to examine during the tax audit (Tax Management Transfer Pricing Report (TMTPR), November 6, 2008). Similarly, foreign tax authorities have also been interested in the FIN 48 disclosures. FIN 48 applied to all companies that use the U.S. Generally Accepted Accounting Principles (GAAP). This includes tax-exempt entities and foreign companies registered with the Securities and Exchange Commission (SEC). As FIN 48 affects multinational corporations preparing financial statements for the SEC in the U.S., it affects these companies' uncertain tax positions in all jurisdictions. Non-U.S. tax authorities can monitor these FIN 48 disclosures to increase their information set and minimize the use of tax audit resources.<sup>7</sup> Furthermore, policymakers, including those in the Senate, are also interested in the effect of FIN 48 to increase tax compliance.<sup>8</sup>

Our initial hypothesis is that introducing FIN 48 has increased taxes paid by companies. Adopting FIN 48 potentially reduces the information

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<sup>6</sup> The IRS Large and Mid-Size Business (LMSB) Division Deputy Commissioner of International stated on January 4, 2008, that the IRS is monitoring FIN 48 disclosures regarding transfer-pricing-related uncertainty discussions and tax reserves (Bureau of National Affairs (BNA), January 8, 2008). While the Deputy Commissioner stated that the IRS is closely observing these disclosures; the IRS has not changed its position on its policy of restraint for tax work papers. As of December 2008, the IRS maintains a policy of voluntary restraint regarding the request for calculations and documents in the work papers used to calculate tax accrual, including FIN 48 disclosures.

<sup>7</sup> An official at H.M. Revenue and Customs (HMRC), the U.K. tax authority, stated that HMRC have been monitoring the FIN 48 disclosures closely. Not only have HMRC been monitoring to obtain additional information for tax audit purposes, the office stated that HMRC have been monitoring the effects these disclosures have on share prices; the market reactions to such disclosures; and financial analysts' use of these disclosures (TMTPR, December 4, 2008).

<sup>8</sup> Senator Carl Levin and the Senate Homeland Security and Governmental Affairs Permanent Subcommittee on Investigations have requested the work paper files surrounding FIN 48 and international transactions including transfer pricing. It was stated that Senator Levin believed this policy of restraint is ill-conceived, and, during 2007, this committee requested work paper files for an undisclosed set of companies regarding advanced pricing agreements and the amounts of unrecognized tax benefits (TMTPR, September 11, 2008).

asymmetry faced by tax authorities. This may reduce the resources necessary for tax authorities to perform tax examinations. The tax authorities can raise the efficiency of selecting companies for tax audits and focus attention on specific tax issues within a tax audit. Nevertheless, different firms may react differently to FIN 48's introduction.<sup>9</sup> For example, firms of different sizes as measured by revenue and/or capital assets may react differently to FIN 48 implementation. These differential behavior responses may be due to a) the differing exposure to tax audits and b) differing levels of resources needed for creative tax planning and tax audit defense. The probability of being selected for a tax audit decreases with company size. Very large companies are continuously audited. As such, the financial and tax records of these companies are continuously scrutinized by the IRS. On the other hand, smaller companies are only exposed to the "tax audit lottery."<sup>10</sup> Similarly, larger companies generally have more resources to gain access to higher quality more sophisticated tax strategies and tax professionals with higher ability to construct, implement, and defend these strategies.

There is a tradeoff effect between these two factors—tax audit lottery and resources for tax saving. The effects of FIN 48 may vary depending on which factor is more dominant. One possible hypothesis is that larger companies with continuous tax audits are less likely to alter their behaviors with FIN 48 relative to their smaller counterparts. With continuous scrutiny and focus, the asymmetric information gap between large companies and the tax authorities may be smaller than the gap between smaller companies and the tax authorities. With FIN 48, all else held equal, we may observe smaller companies increasing their taxes, while larger companies are unaffected by FIN 48.

Another hypothesis is that introducing FIN 48 may increase taxes for large companies. Prior to FIN 48, companies did not have the same demands

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<sup>9</sup> One Ernst & Young director of Tax Accrual Services was not surprised with the diversity in FIN 48 disclosures. He remarked that, since the analysis depends on the facts and circumstances, as well as a company's intentions in ultimately resolving the tax position, the results may be inconsistent between companies. One auditor at a Big Four firm anonymously stated that companies showed various ranges of FIN 48 responses. While some companies reported having an uncertain tax position, the company deemed some positions as being immaterial for reporting purposes. Thus, the tax position was reported not to materially affect earnings or retained earnings (BNA May 22, 2007).

<sup>10</sup> The proportion of tax returns examined by the IRS by asset groups provides the evidence. Only 3.0 percent of the tax returns in each asset group with assets less than \$10 million were examined in FY 2007. This probability increases dramatically once assets surpassed \$10 million (18.5 percent of the tax returns in the 5 asset categories between \$10 million and \$1.0 billion were examined) and approximately doubles to 31.6 percent for companies with assets between \$1.0 billion and \$5.0 billion. The probability further doubled to 62.9 percent for companies with assets between \$5.0 billion and \$20.0 billion. All tax returns for companies with assets above \$20.0 billion were audited.

on disclosing the viability of their tax positions. Larger companies have more complex business structures with affiliates in many countries. These companies may have used their multinational structures to implement complex aggressive tax positions prior to FIN 48. Some aggressive tax positions may not pass the “more-likely-than-not” threshold of FIN 48. Under this hypothesis, larger companies would be more likely to increase their taxes with FIN 48. These larger companies may reduce the number of aggressive tax positions, especially those that do not pass the “more-likely-than-not” threshold.

The following section examines which hypothesis seems to explain what happened after the introduction of FIN 48. Of course, our analysis accounts for a third possibility: FIN 48 did not affect companies’ taxes at all.

## Data

The majority of the data we used were extracted from the S&P Compustat North America database DVD issued in April 2009. The Compustat DVD contains financial and market data for approximately 21,000 public companies, including financial information on approximately 10,000 currently active companies and approximately 10,900 inactive companies. The information includes income variables (pretax income, sales revenue); tax cost variables (Federal taxes); cost variables (cost of goods sold (COGS); sales, general, and administrative expenses (SG&A); R&D expenditures); asset and debt variables (cash and cash equivalents, gross amounts of property, plant, and equipment (PP&E), inventory levels, goodwill, debt, and capital); and the country of incorporation. Each Compustat DVD provides a panel dataset of up to 20 years generally on publicly owned companies obtained from the documents filed with the Securities and Exchange Commission (SEC). We used the full panel available in our Compustat DVD; therefore, the time period for our analysis is 1989 through 2008. This time period includes two recessions in the U.S. economy and, thus, is relevant to analyze companies’ strategic behaviors under several alternative situations.

We obtained data on the producer price index (PPI) for all commodities. All monetary measures are deflated with the PPI to 2007 dollars and are measured in millions of dollars. We used the PPI because companies’ business environments may be more affected by changes in the PPI than the consumer price index.

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<sup>11</sup> These are companies in the agriculture, forestry, and fishing industry.

Our analysis focuses on U.S. companies in relevant industry sectors. We eliminated observations in Division A of the SIC Division Structure.<sup>11</sup> We also eliminated observations in the government sector which are observations in Division J and in the SIC of 43.<sup>12</sup> We expect companies in these SIC categories were not sensitive to the introduction of FIN 48. Our sample also excludes observations that were considered subsidiaries by Compustat or observations of companies that underwent a buyout. Subsidiaries are under the control of parents. Their responses could be captured by analyzing their parents' behaviors. Additionally, we eliminated any company with less than 3.0 years of observations. Unobserved company specific factors may bias our results. A sufficient number of observations for each company are necessary to control for such factors.

We split the observations into size categories in order to examine the possible differential effect of FIN 48 by company size. All companies with total assets greater than \$250 million were classified as "Large." Nonlarge companies are those not classified as Large. This classification is consistent with the IRS Data Books.<sup>13</sup>

Table 1 shows summary statistics of our sample.

**Table 1. Summary Statistics for U.S. Companies**

Dependent Variables	All		Large Companies		Nonlarge Companies	
	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
U.S. Federal Income Tax Payments	20.59	127.01	65.18	224.16	1.14	2.86
Variables of Interest	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Large Companies	30.37%		100.00%		0.00%	
Nonlarge Companies	69.63%		0.00%		100.00%	
FIN 48	4.64%		9.17%		2.67%	
FIN 48*Large	2.79%		9.17%		0.00%	
FIN 48*(Nonlarge)	1.86%		0.00%		2.67%	
FIN 48 (Year of Implementation)	3.51%		5.96%		2.45%	
FIN 48 (Year of Implementation)*Large	1.81%		5.96%		0.00%	
FIN 48 (Year of Implementation)*(Nonlarge)	1.70%		0.00%		2.45%	
Control Variables	Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
Net Sales Revenue	1,079.54	6,541.60	3,404.07	11,537.79	65.67	110.11
Total Cost	943.37	5,775.21	2,961.32	10,195.72	63.23	104.49
R&D Expense	22.17	202.97	66.98	364.19	2.63	7.63
Depreciation and Amortization	46.98	330.18	148.80	586.55	2.57	4.64
Interest Expense	40.93	659.03	131.96	1,190.90	1.22	2.74
Gross PP&E	577.03	4,295.44	1,844.30	7,644.90	24.30	43.95
Cash Holdings	196.49	3,153.58	622.78	5,699.60	10.56	20.18
Inventory	196.54	4,265.79	631.06	7,723.21	7.02	15.37
Goodwill	73.26	832.24	238.94	1,497.06	1.00	6.09
BV of Capital	1,910.00	14,737.25	6,066.15	26,272.57	97.26	212.13
BV of Debt	601.81	10,300.49	1,955.54	18,620.87	11.37	24.77
Number of Observations	78,061		23,707		54,354	

**Note:** All information except for ratios is presented in millions of 2007 U.S. dollars. All data are extracted from the Compustat Database. Total Cost is the sum of COGS, SG&A, and Depreciation and Amortization expenses.

<sup>12</sup> Division J includes Public Administration industry. Entities with SIC codes between 4300 and 4399 are classified as United States Postal Service entities.

<sup>13</sup> The IRS Data Book provides the information on the proportion of audits by companies' size. The data for the years 1999 to 2006 show similar trends. Companies with less than \$10 million in total assets generally experienced less than 10 percent audit rates. Companies with assets between \$10 million and \$250 million generally faced a 15 percent audit rate. Companies with assets greater than \$250 million had an historic audit rate of approximately 30 percent.

We have 78,061 observations; 23,707 observations are Large companies while the remaining 54,354 observations are not. Large companies accounted for 30.37 percent of the total sample. Approximately 4.64 percent of the observations are after FIN 48, and approximately 2.79 percentage points of these are classified as Large.

We also provide the percentage of observations that experienced FIN 48 for the first time. These are observations of companies with a fiscal-year end date between December 31, 2007, and November 30, 2008.<sup>14</sup> Approximately 3.51 percent of the observations are from this period. Approximately 1.81 percentage points of these are classified as Large, and 1.70 are Non-large.

The table shows a significant difference in taxes between the Large companies and Nonlarge companies. While the average Federal taxes were approximately \$20.6 million, the average Large company paid approximately \$65.2 million in Federal income taxes. The average Nonlarge company paid \$1.1 million.

We also observe a significant difference in the other variables between Large and Nonlarge companies. In our sample, the average sales revenues were approximately \$1.0 billion. Larger companies' sales revenues are 52 times larger than their smaller counterparts, which maintained approximately \$65.7 million. The total costs of the average company were approximately \$943.4 million. The average company earned an operating profit margin of 12.6 percent.<sup>15</sup> Larger companies' average total costs were approximately \$3.0 billion, resulting in an operating profit margin of 13.0 percent, which is slightly larger than the average for all companies combined. Nonlarge companies earned an operating profit margin of approximately 3.7 percent. Nonlarge companies maintained more R&D expenditures and depreciation expenses relative to their book value of capital and maintained higher gross PP&E and cash relative to the book value of their capital assets than Large companies. These may imply that larger companies enjoy economies of scale. On the other hand, Large companies have a higher debt-to-capital ratio relative to Nonlarge companies.

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<sup>14</sup> Technically, observations with fiscal year end between December 16, 2007 and December 15, 2008 would have first implemented FIN 48. Nevertheless, companies generally do not have fiscal-year end dates in the middle of the year. Therefore, our construction of this variable as between December 31, 2007, and November 30, 2008, will introduce minimal noise.

<sup>15</sup> Operating profit margin is (sales-total costs)/sales. It is a measure of the profitability of the operations relative to sales revenues.

In Table 2, we compared companies' taxes before and after FIN 48 to obtain a sense of the possible effect of FIN 48.

**Table 2. Summary Statistics for Companies Before and After FIN 48**

Dependent Variables	Before FIN 48			After FIN 48		
	All	Large	Nonlarge	All	Large	Nonlarge
U.S. Federal Income Tax Payments	18.30	60.49	1.14	67.47	111.62	1.21
Number of Observations	74,437	21,532	52,905	3,624	2,175	1,449

Dependent Variables	Right Before FIN 48			Right After FIN 48		
	All	Large	Nonlarge	All	Large	Nonlarge
U.S. Federal Income Tax Payments	48.47	99.84	1.09	54.96	105.58	1.11
Number of Observations	3,479	1,669	1,810	2,743	1,414	1,329

**Note:** U.S. Federal Income Tax Payments presented in millions of 2007 U.S. Dollars. All data are extracted from the Compustat Database.

The upper panel compares taxes before and after FIN 48. While the Federal taxes increased after FIN 48 for all samples, reviewing the level of taxes shows an upward trend, except for recession years when the level of taxes dropped. In the lower panel, we further compare taxes for the fiscal-year prior to the mandatory adoption of FIN 48 (the right before FIN 48 columns) and the fiscal year FIN 48 was instituted (the right after FIN 48 columns). In reviewing the lower panel, the average company increased taxes from \$48.5 million to \$55.0 million. In addition, large companies increased their federal U.S. taxes by \$5.7 million and Nonlarge companies slightly increased taxes by approximately \$200,000.

One inference from the analysis is that, on average, FIN 48 increased Federal income taxes. Nevertheless, these results should be interpreted cautiously because other factors that affect these variables have not been controlled for. Our model in the following section controls for other influencing factors through the use of a multivariate regression in order to examine the separate effects of FIN 48.

## Model

Our analysis investigates the effects of the initial adoption of FIN 48 on the companies' taxes using the following reduced form model.

$$y_{ijt} = \alpha + \beta_1 * FIN48_{ijt} + ControlVariables_{ijt} * B + \gamma_{jt} = \delta_i + \tau_t + \varepsilon_{ijt}. \quad (1)$$

The dependent variable  $y_{ijt}$  is company  $i$ 's Federal income taxes in industry  $j$  in year  $t$ .

$FIN48_{ijt}$  is a dummy variable to distinguish companies' behaviors before and after FIN 48. We examined two different specifications of this



variable. In our first specification,  $FIN48_{ijt} = FIN48^1_{ijt}$ , it is equal to one if the company's observations are for FYE December 31, 2007, or later. Otherwise,  $FIN48_{ijt}$  is equal to zero. We are also concerned that FIN 48 may have a transitional effect and affects companies' taxes only in the year of adoption. Therefore, we also constructed  $FIN48_{ijt}$  as a dummy variable for a company's first experience with FIN 48. This variable,  $FIN48_{ijt} = FIN48^2_{ijt}$ , is equal to one for a company's observations with FYE December 31, 2007, to November 30, 2008. Otherwise,  $FIN48_{ijt}$  is equal to zero.<sup>16</sup>  $\beta_1$  is the coefficient of interest. For example, if the estimate is positive, companies are found to pay more tax after FIN 48.

*ControlVariables<sub>ijt</sub>* is a set of other variables that may affect our dependent variables. These variables are net sales revenues, total costs, R&D expenses, depreciation and amortization, interest expense, gross property plant and equipment (PP&E), cash and cash equivalents, inventory, goodwill, book value of capital, and book value of debt. In addition to these firm-specific variables, broader control variables were included to control for unobserved industry-specific effects,  $\gamma_{jt}$ .<sup>17</sup> We also included four-digit Standard Industrial Classification (SIC) group indicators. Unobservables that are specific to each year are controlled for with a set of time dummies,  $\tau_t$ . We also included a linear time trend and total nonfarm employment to control for unobserved macroeconomic factors that are not captured by the industry dummies, and time dummies.<sup>18</sup>

The empirical model can be estimated by either a random effect model or a fixed effect model approach. Random effects are used if an individual company dummy,  $\delta_i$ , is uncorrelated with the explanatory variable in all time periods. Otherwise, fixed effects are used to eliminate the unobserved company-specific effects,  $\delta_i$ . As a cautionary measure, fixed effects, modeling may be more appropriate to control for any possible time-invariant company-specific unobservable factors that may affect taxes.

Since companies measured by size may have differing responses to FIN 48, we apply equation (1) to our subsample of Large and Nonlarge in

<sup>16</sup> FIN 48 is effective for companies with fiscal years beginning after December 15, 2006. The fiscal year of many companies is the same as the calendar year, between January 1 and December 31. This implies that most companies adopted FIN 48 with their 2007 fiscal year. Some companies may have voluntarily adopted FIN 48 methodologies prior to finalizing their 2006 fiscal-year financial statements. However, given that many companies do not have a FYE in the middle of the month, our construction of the FIN48 variable should introduce minimal noise to the results.

<sup>17</sup> For most companies,  $\gamma_{jt}$  is time-invariant; however, a company can change its business to be reclassified into another SIC.

<sup>18</sup> Our analysis tried several macroeconomic variables, such as real GDP and unemployment rates. The inclusion of those variables did not have a qualitative effect on our results, and, thus, were dropped from our analysis.



addition to all observations. These analyses allow us to gain an understanding of the average response by size category.

**Table 3. Regression Results for FIN 48**

Variables	Nonlarge Sample		
	Overall	Large Sample	Sample
	1	2	3
FIN 48	4.07 (3.07)	9.08 (8.50)	0.07 (0.11)
Sales	0.04 (0.001)***	0.04 (0.001)***	0.09 (0.001)***
Total Cost	-0.04 (0.001)***	-0.04 (0.001)***	-0.08 (0.001)***
R&D	-0.03 (0.002)***	-0.04 (0.004)***	0.01 (0.002)***
Depreciation and Amortization	0.00 (0.002)	0.01 (0.004)	0.08 (0.003)***
Interest Expense	-0.06 (0.001)***	-0.06 (0.002)***	-0.05 (0.006)***
Gross PP&E	0.00 (0.000)***	0.00 (0.000)***	0.00 (0.000)***
Cash and Cash Equivalents	0.00 (0.000)***	0.00 (0.000)***	0.02 (0.001)***
Inventory	0.00 (0.000)***	0.00 (0.000)	0.02 (0.001)***
Goodwill	0.01 (0.000)***	0.01 (0.001)***	-0.01 (0.001)***
Book Value of Capital	0.01 (0.000)***	0.01 (0.000)***	0.00 (0.000)***
Book Value of Debt	0.00 (0.000)***	0.00 (0.000)***	-0.01 (0.001)***
Assumption on Company-Level Unobservables	FE	FE	FE
Number of Observations	78,061	23,707	54,354

**Note:** Our overall dataset has 9,465 companies and 78,061 observations. All columns provide the results of the fixed effect models. Column 1 provides the estimated results of FIN 48 on the entire population. Column 2 provides the estimated results of FIN 48's effects on large companies. Column 3 provides the estimated results of FIN 48's effects on nonlarge companies.

All models include company-specific variables. These variables are net sales revenues, total costs, R&D expenses, depreciation and amortization, interest expense, gross PP&E, cash and cash equivalents, inventory, goodwill, book value of capital, and book value of debt. We also include 4-digit SIC code indicators, time dummies, time trend, and nonfarm employment to control for other macroeconomic factors. Standard errors are provided in parentheses. All information is presented in millions of 2007 U.S. dollars. All company level data are extracted from the Compustat Database.

\*\*\* Indicates statistical significance at 1 percent.

\*\* Indicates statistical significance at 5 percent.

\* Indicates statistical significance at 10 percent.

## Results of the Analysis

Table 3 provides the results of estimating (1) on U.S. Federal taxes using  $FIN48_{ijt} = FIN48_{ijt}$ .

Column 1 provides the overall effects of FIN 48 using the full sample. Column 2 presents the effects on the subsample of Large companies. Column 3 provides the effects on the subsample of nonlarge companies. While we estimate a positive coefficient on the effect of FIN 48, these coefficients are not statistically significant at conventional levels.

While the other covariates are included as controls, the estimated effects of company level covariates are provided. An increase in sales is correlated with increases in taxes, and increases in total costs reduce taxes owed to the U.S. Federal Government. We also find that increases in R&D expenditures are generally correlated with a reduction in taxes; however, the opposite relationship was uncovered with respect to Nonlarge companies. While we do not find a correlation between depreciation and amortization expenses and taxes for the overall sample and the sample of Large companies, we find that increases in such expenses increases taxes owed by Nonlarge companies. Generally, one should find that an increase in such expenses reduces taxes. We also find that increases in interest expenses are associated with reductions in taxes owed to the Federal Government, and increases in assets like Gross PP&E, Cash, Inventory, or Goodwill increase taxes owed to the Federal Government.

Table 4 provides the results of estimating (1) on U.S. Federal taxes using  $FIN48_{ijt} = FIN48_{ijt}$ .

Column 1 provides the overall effects of FIN 48 using the full sample. Column 2 presents the effects on the subsample of Large companies. Column 3 provides the effects on the subsample of Nonlarge companies. We also provide the estimated effects of the other company-level covariates.

Column 1 shows that U.S. taxes increased by \$5.83 million with the implementation of FIN 48. Columns 2-3 show that the results differ by company size. While the average taxes of Large companies increased by \$10.29 million, the average taxes of Nonlarge companies increased by \$0.19 million.<sup>19</sup> It appears that the magnitudes of the estimates presented in Table 3 are qualitatively similar to those presented in Table 4. However, given statistical significance estimates presented in Table 4, it appears that FIN 48 may have had a transitional effect on taxes and not a sustained effect. The

<sup>19</sup> We take care in interpreting the results. While our analysis controlled for many factors that affect taxes, if another event or policy jointly occurred at the end of December 2007, we would be unable to untangle its effects with those of FIN 48.

**Table 4. Regression Results for FIN 48 in the Year of Implementation**

Variables	Large Sample		
	Overall	Only	Nonlarge Sample
	1	2	3
FIN 48	5.83 (2.27)***	10.29 (5.86)*	0.19 (0.09)**
Sales	0.04 (0.001)***	0.04 (0.001)***	0.09 (0.001)***
Total Cost	-0.04 (0.001)***	-0.04 (0.001)***	-0.08 (0.001)***
R&D	-0.03 (0.002)***	-0.04 (0.004)***	0.01 (0.002)***
Depreciation and Amortization	0.00 (0.002)	0.01 (0.004)	0.08 (0.003)***
Interest Expense	-0.06 (0.001)***	-0.06 (0.002)***	-0.05 (0.006)***
Gross PP&E	0.00 (0.000)***	0.00 (0.000)***	0.00 (0.000)***
Cash and Cash Equivalents	0.00 (0.000)***	0.00 (0.000)***	0.02 (0.001)***
Inventory	0.00 (0.000)***	0.00 (0.000)	0.02 (0.001)***
Goodwill	0.01 (0.000)***	0.01 (0.001)***	-0.01 (0.001)***
Book Value of Capital	0.01 (0.000)***	0.01 (0.000)***	0.00 (0.000)***
Book Value of Debt	0.00 (0.000)***	0.00 (0.000)***	-0.01 (0.001)***
Assumption on Company Level Unobservables	FE	FE	FE
Number of Observations	78,061	23,707	54,354

**Note:** Our overall dataset has 9,465 companies and 78,061 observations. All columns provide the results of the fixed effect models of the effect of FIN 48 for the first year of implementation. Column 1 provides the estimated results of FIN 48 on the entire population. Column 2 provides the estimated results of FIN 48's effects on large companies. Column 3 provides the estimated results of FIN 48's effects on nonlarge companies.

All models include company-specific variables. These variables are net sales revenues, total costs, R&D expenses, depreciation and amortization, interest expense, gross PP&E, cash and cash equivalents, inventory, goodwill, book value of capital, and book value of debt. We also include 4-digit SIC code indicators, time dummies, time trend, and nonfarm employment to control for other macroeconomic factors. Standard errors are provided in parentheses. All information is presented in millions of 2007 U.S. dollars. All company-level data are extracted from the Compustat Database.

\*\*\* indicates statistical significance at 1 percent.

\*\* Indicates statistical significance at 5 percent.

\* Indicates statistical significance at 10 percent.

estimated effects of the other company-level covariates remain generally the same as those provided in Table 3.

To understand the magnitude of these estimated effects, we divide the coefficient estimates by the U.S. Federal taxes for the year of implementation. Our results are presented in Table 5.

**Table 5. Fraction of U.S. Federal Taxes Estimated To Be Due to FIN 48**

Variables	Overall	Large Sample	Nonlarge Sample
	1	2	3
Estimated FIN 48 Effect/U.S. Federal Taxes during FIN 48 Implementation	10.6%	9.7%	17.4%
Number of Observations			

**Note:** Our overall dataset has 9,465 companies and 78,061 observations. Estimated effect from the fixed effects models are used. All columns provide the percentage of U.S. Federal tax payment due to FIN 48 in the year of implementation. Columns 1 provides the result for the entire population. Columns 2 provides the results for large companies. Columns 3 provides the results for nonlarge companies.

For the overall population, we find that approximately 10.6 percent of the taxes for the year of implementation may be due to adopting FIN 48. For Large companies, this percentage falls slightly to 9.7 percent. In addition, 17.4 percent of Nonlarge companies' taxes appear to be from implementing FIN 48. It appears that Nonlarge companies paid a higher proportion of their taxes because of FIN 48 adoption.

One inference is that FIN 48's disclosure requirements may have reduced companies' use of aggressive tax-saving strategies. Prior to FIN 48, companies may have saved on taxes by aggressive tax strategies that would not have passed the "more-likely-than-not" threshold in FIN 48, knowing their asymmetric advantages over tax authorities. Companies have full knowledge of their operations, while the tax authorities must generally rely on publicly available sources and the information provided by the companies. Furthermore, while larger companies may have access to more sophisticated tax strategies via highly qualified tax professionals who plan and implement tax-saving strategies, smaller companies enjoyed a lower probability of being audited. FIN 48 helped to alleviate the asymmetric information problem faced by the tax authorities. Even though FIN 48 disclosures are the company's own assessments, FIN 48 increases the tax authorities' information and reduces the tax authorities' auditing costs. Thus, FIN 48 appears to have increased the taxes of companies via improved tax compliance and disproportionately affected smaller companies more than larger companies.

## **Conclusion**

This paper examines whether FIN 48 affected companies' tax strategies. It does so by estimating the effects of FIN 48 on U.S. Federal taxes. While several studies were performed to understand FIN 48's effects on companies' financial reporting, its effects on tax revenues had not previously been explored. Our analysis compared companies' taxes before and after FIN 48 using reduced form linear empirical models. Specifically, we focused our analysis on the behavioral responses of U.S. companies with different sizes, since FIN 48 may have induced different effects by company size.

We find that FIN 48 appeared to affect the taxes of companies only during the year of implementation. Overall, FIN 48 appears to have increased taxes for U.S. companies. Regardless of company size, adopting FIN 48 appears to have increased company taxes in the U.S. Nevertheless, it appears that smaller companies increased taxes relatively more than larger companies. The results indicate the possibility that FIN 48's disclosure requirements have reduced the information asymmetry enjoyed more by smaller companies with lower probability of tax audits.

The current study could be extended. Our analysis examines overall impacts of FIN 48 on taxes as reported in the financial statements. Nevertheless, the tax reserves are buried within the data on taxes (Hanlon, 2003). Further research should be performed to tease out the annual U.S. Federal tax payment from the tax reserves. Another possible extension is to decompose domestic taxes and foreign taxes and to study the impacts by tax jurisdiction. While such analysis requires detailed private data, uncovering these effects would increase the understanding of the tax authorities, specifically about income shifting across countries.

Another extension is to conduct a robustness check of the current model specification. Our analysis uses the implementation date of FIN 48 as the threshold of the FIN 48 indicator. However, companies may adopt FIN 48 earlier than the mandate. As previous years are open to audit, companies may have wanted to reduce aggressive tax planning strategies prior to the mandated adoption of FIN 48. Since reaction to the implementation of FIN 48 may have occurred prior to the mandated date, we are currently estimating models with a modified FIN 48 indicator to allow for early adoption.

Future research can also be extended to develop a dynamic framework to understand the effects of FIN 48 on the companies' effective marginal tax rates. In the U.S., tax losses are carried backward and forward for a limited number of years to offset taxable incomes that existed in the past or

will exist in the future. Therefore, companies' tax decisions are intertemporal. Models developed in several works, including Shevlin (1987), Shevlin (1990), Graham (1996a), and Graham (1996b), may provide useful tools to extend the analysis. All of these topics represent potentially interesting future lines for research.

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## **Appendix**

We needed to process the raw data prior to performing our analysis. We first eliminated any observation with missing data in the included variables. Second, differences in fiscal years among companies needed to be aligned for our analysis. Different companies have different fiscal year ends (FYE) throughout the year. For example, while many companies maintain a December 31 FYE, some companies end on March 31, and other end on other dates throughout the year. We assumed all companies with a FYE six months before and six months after December 31 FYE were in that particular fiscal year. For example, observations with FYE between July 01, 2005, and June 30, 2006, are classified as 2005 data. Third, we adjusted stock variables in balance sheets. Compustat measures these variables at the FYE; however, the average amount through the fiscal year is more relevant for our analysis.

Therefore, we obtained an average measure of all balance sheet data using the previous year's observation.<sup>20</sup> Fourth, we converted all Last in First Out (LIFO) inventory using the LIFO reserves to First in First Out (FIFO) inventory.<sup>21</sup> The LIFO and FIFO methods are the two major methods for inventory accounting. We assumed all companies used either the LIFO or FIFO inventory accounting method. If a company reports a LIFO reserve, the company is assumed to use the LIFO method. For the  $i^{\text{th}}$  company in year  $t$ , we converted all average LIFO inventory to the FIFO inventory value using equation:  $\text{Avg.INV}_{i,t}^{\text{FIFO}} = \text{Avg.INV}_{i,t}^{\text{LIFO}} + \text{Avg.LIFO Reserve}_{i,t}$ , where  $\text{Avg.INV}_{i,t}^{\text{FIFO}}$  is the FIFO measure of inventory,  $\text{Avg.INV}_{i,t}^{\text{LIFO}}$  is the dollar amount of inventory as measured using LIFO method, and  $\text{Avg.LIFO Reserve}_{i,t}$  is the amount of reserves in year  $t$ . As COGS is calculated using changes in inventory, an adjustment to COGS is made with the change in LIFO reserves. This converted all inventory and COGS to the same Scomparable levels.

<sup>20</sup> If the previous year's observation did not exist, we did not calculate the average but rather used the FYE observation.

<sup>21</sup> The LIFO reserves are the difference between the FIFO value of inventory and LIFO value. The LIFO reserves are a measure of the cumulative amount that a company's taxable income or financial statement pretax income has been reduced by using the LIFO method.



# Analyzing the Enhanced Relationship Between Corporate Taxpayers and Revenue Authorities: A U.K. Case Study

*Judith Freedman, Oxford University Law Faculty and Oxford University Centre for Business Taxation; Geoffrey Loomer, Dalhousie University Law School and Oxford University Centre for Business Taxation; and John Vella, Oxford University Centre for Business Taxation*

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Corporate taxpayers sometimes engage in what the revenue authorities consider to be “aggressive” revenue reducing avoidance behavior. The Organization for Economic Co-operation and Development (OECD) has defined this as “planning involving a tax position that is tenable but has unintended and unexpected tax revenue consequences,” as well as “taking a tax position that is favorable to the taxpayer without openly disclosing that there is uncertainty whether significant matters in the tax return accord with the law.”<sup>1</sup> Revenue authorities around the world are concerned to manage the risks of reduced revenue collection resulting from such behavior. At the same time, the behavior so described may well be perfectly legal and not subject to any penalty. There are practical management and resource allocation questions, as well as rule of law issues about management of risk in this area. The current paper focuses on the results of a survey of attitudes of tax directors to the response by the United Kingdom (U.K.) revenue authorities to the management of tax risk. Further discussion by the authors of the difficult definitional issues and general analysis of tax avoidance questions can be found elsewhere.<sup>2</sup>

In recent years, a number of countries, including the United States (U.S.), the U.K., Australia, and the Netherlands, have been experimenting with innovative risk management techniques based on fostering a trusting and co-operative relationship with taxpayers. The goals of these initiatives are to improve resource allocation by revenue authorities, to reduce compliance costs for co-operative taxpayers, and to reduce incentives to participate in the behavior described above, even in cases where it is legal. These risk management techniques have been endorsed in a study by the OECD.<sup>3</sup>

The U.K. revenue authority, Her Majesty’s Revenue and Customs (HMRC), has recently adopted the Risk Rating Approach (RRA) for taxpayers within its Large Business Service (LBS). This program has been described by the Inland Revenue Service Advisory Council (IRSAC) as “a

novel and fairly bold approach to managing taxpayer compliance risk”.<sup>4, 5</sup> The IRSAC Report for 2008 explains that the present focus of the IRS Large and Midsize Business Division (LMSB) is on improving current programs rather than creating new ones. Despite this, the IRSAC recommends:

“... that LMSB management should monitor closely the progress and results of the LBS Initiative—with a view toward considering whether, at least, certain elements of that program might be useful to LMSB in its ongoing efforts to develop new and improved approaches for identifying and managing large taxpayer compliance risks and incentivizing those LMSB taxpayers who are especially cooperative in facilitating such efforts. Such consideration would be particularly germane, we believe, to LMSB’s continuing evaluation and modification of its Compliance Assurance Program (“CAP”) and Limited Issue Focus Examination Program (“LIFE”), both of which similarly seek to ease the burden of tax audits as the result of enhanced cooperative relationships with participating taxpayers.”<sup>6</sup>

The primary aim of this paper is to provide both an early assessment of the RRA on the basis of empirical work undertaken by the authors, as well as commentary on further U.K. initiatives designed to address tax risk. It is hoped that this paper will be of assistance if the IRS decides to consider an approach akin to the RRA or at least certain elements of it. This assessment of the RRA is largely based on views the authors gathered from tax directors. The views of tax directors are only one factor in judging the success of these developments, but, given that one aim of current tax policy is an enhanced relationship with corporate taxpayers, directors’ views are significant in assessing the progress being made.

It is important to note that the RRA is in its early stages. Indeed, the IRSAC Report comments that a “few years’ actual experience under the LBS Initiative ... will of course be necessary before any reasonable assessment can be made as to its overall effectiveness from the perspective of HMRC and participating U.K. companies.” This is undoubtedly true. However, it is already possible to learn something about the apparent strengths, weaknesses, and design of the RRA, and, indeed, there have been modifications to the system in the U.K. since the survey discussed here was completed, as described below.

Between 2007 and 2008, the authors carried out a qualitative research project examining a number of issues relating to tax risk and tax risk management, avoidance, and the relationship between large corporates and HMRC. The core part of this paper presents the findings on the two main issues examined in the research project, namely the RRA as part of a wider enhanced relationship model, and two new legislative approaches adopted by HMRC to deal with avoidance. The two legislative approaches are targeted anti-avoidance rules (TAARs), which are purpose-based avoidance rules akin to a general anti-avoidance rule, though confined to one area of the tax code, and principles-based legislation (PBL). Together, the RRA, as part of the broader enhanced relationship program, and these new legislative approaches can be seen as constituting HMRC's multi-pronged approach to dealing with tax risk. The primary focus of this paper is the RRA, although the findings on new legislative approaches are also mentioned. A third, and very important, prong of the program is the requirement to disclose certain tax schemes in advance. The U.K. disclosure regime is now well established and was not discussed as part of this research project, although it forms an important backdrop. A brief explanation of the disclosure regime is given below.<sup>7</sup>

The research project was carried out by means of a survey of views of large businesses undertaken by the authors (referred to herein as the Main Survey).<sup>8</sup> The Main Survey examined the views of tax directors obtained from in-depth interviews conducted in spring 2008 with tax directors of 30 corporate groups. In summary, the authors found that the RRA and the enhanced relationship program on the whole have been successful in achieving some aims but not others. Thus, for example, while the RRA has led to a perceived better allocation of resources within HMRC, it seems to be less convincing as a means of moderating the tax planning of certain types of corporate taxpayer. With respect to the two new legislative approaches, the authors found that there was some support for the view that they could advance the simplicity and coherence of the tax system and possibly enhance competitiveness. However, it was also clear that there remain serious concerns about certainty of application and resistance by some to modifying behavior beyond what they perceived to be required by law. The fact that these new regimes are co-existing with the RRA approach did not necessarily moderate these concerns.

The rest of this paper is structured as follows. It provides a brief comparative review of risk management initiatives based on co-operation. It provides information on the survey, in particular the methodology employed in carrying it out and analyzing its results. It provides an analysis of the main findings of the survey. It describes and provides commentary on developments since the survey, and then concludes.

## **Brief comparative review**

### **OECD**

In January 2008, the OECD published a study on the role of tax intermediaries, a study which went considerably further than its title suggests in attempting to form the basis for an agreed approach to the management of tax risk by revenue authorities.<sup>9</sup> The study concluded that “risk management is an important tool enabling revenue bodies to prioritize risk and allocate resources effectively.”<sup>10</sup> As risk management depends on the information available to revenue bodies, the study recommended, among other things, that revenue bodies establish a “more collaborative, trust based relationship... between revenue bodies and large corporate taxpayers who abide by the law and go beyond statutory obligations to work together co-operatively.”<sup>11</sup> Such an enhanced relationship should lead to a better flow of information from taxpayers through early disclosure and greater transparency and thus allow for a better allocation of resource according to risk. Taxpayers also benefit from such a relationship through, among other things, lower compliance costs and enhanced certainty.<sup>12</sup> The study team noted the existence of a number of mechanisms that can and have been adopted to build this enhanced relationship, some of which will be discussed below. It also suggested that, if taxpayers do not wish to enter the enhanced relationship, revenue bodies should risk-assess such taxpayers on the basis of information available and respond accordingly.<sup>13</sup>

As noted, some countries had been experimenting with initiatives based on co-operation even prior to the OECD report. Before looking at the initiatives introduced in the U.S. and the U.K., it is worth noting the developments in Australia and the Netherlands.

### **Australia**

The Australian Taxation Office (ATO) has been a pioneer in developing wide-ranging programs espousing “responsive regulation” rather than “command-and-control regulation.” As early as 1998, in fact, the ATO adopted a pyramidal model of responsive regulation as a means of improving its management of taxpayer compliance, and this Compliance Model, briefly described here, has been used ever since to develop enforcement strategies.<sup>14</sup>

The Compliance Model espouses responsive regulation in that it requires the authorities to select an enforcement strategy on the basis of the specific taxpayer’s behavior. Following the Compliance Model, authorities

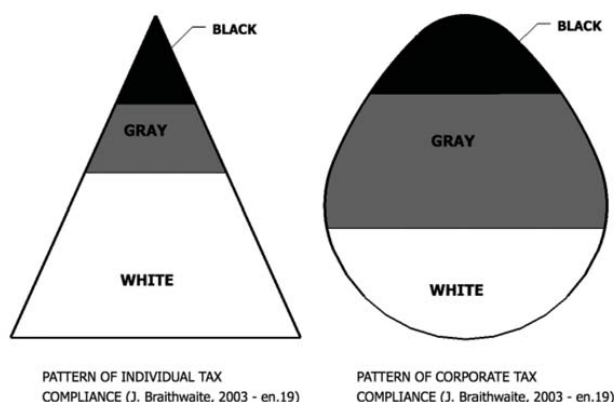
are expected to commence their engagement with taxpayers by being co-operative, through education, understanding, and service delivery, but they are to use increasingly stronger methods, such as audits and penalties, should compliance not be forthcoming. Responsive regulation is said to differ from the command and control style of regulation previously espoused by the ATO, in that, under the latter approach, they would quickly escalate their enforcement strategies when problems arose.<sup>15</sup> It is also said to combine the best of the deterrence and accommodative models of regulation, in that it does not ask whether to punish or to persuade, but when to punish and when to persuade.<sup>16</sup>

The Compliance Model was “significantly influenced” by the work of Ian Ayres, John Braithwaite and Valerie Braithwaite in regulatory and psychological theory.<sup>17</sup> It appears to find backing partly in the “considerable research literature [which] supports the failings of command and control regulation when applied indiscriminately in areas where compliance and non-compliance are multifaceted and complex phenomena.”<sup>18</sup>

John Braithwaite notes that, when the Compliance Model was proposed in 1998 by the Cash Economy Task Force, there were some doubts as to whether it was relevant for large businesses. Writing in 2003, Braithwaite argued that the Compliance Model has relevance to large business, though a different kind of relevance than in the case of the cash economy.<sup>19</sup>

Braithwaite helpfully represents different patterns of compliance for individuals and large corporates graphically. Adapted versions of his representations are reproduced in Figure 1.

The individual Compliance Model works on the basis that the majority of taxpayers want to comply. Braithwaite’s work suggests that more than two thirds of individual taxpayers fall into this category, as shown in the first diagram: the pyramid. As one moves up the pyramid through the gray area (which we equate with tax avoidance) to the black area of unwillingness to comply, in which tax evasion occurs, the number of taxpayers will become smaller and smaller. According to Braithwaite, the majority of large corporations, however, appear to want to comply with the letter but not necessarily with what the revenue authorities regard as the “policy purposes of the parliament’s tax laws,” thus making them “gamers” or “avoiders.” This makes the pattern of large business compliance egg-shaped rather than pyramidal as is the case with individuals, with large numbers of corporate taxpayers falling into the gray area of tax avoidance, as shown in the second diagram in Figure 1. Braithwaite notes that this makes the creation of compliance strategies harder, and, thus, among other strategies, work should be carried out to move the egg-shaped compliance pattern closer to a pyramidal shape. One key way to do this is by law reform which reduces the size of the gray area.<sup>20</sup>

**Figure 1. Compliance Model**

In Australia, a number of initiatives have been taken, in fact, with regard to large corporates, including the Priority Rulings Process (PRR), the Forward Compliance Arrangements (FCA), and the Annual Compliance Arrangements (ACA). The PRR, a process for handling complex private rulings, was introduced in March 2005 and has been generally limited to large transactions.<sup>21</sup> The FCA, which was also introduced in 2005, entails a voluntary arrangement between a large business and the ATO, which sets up an agreed way of working together in the future. In particular, the FCA is a commitment in writing to make a joint effort to focus on complying with current tax requirements and anticipate future tax needs, especially when major transactions affecting tax are likely. A high standard of corporate governance (and a corresponding “low” tax risk profile) is a prerequisite for entry into the program, and a demonstrated commitment to continuous disclosure is also required.<sup>22</sup> Finally, the ACA, which was launched in 2008, is designed to provide practical certainty by jointly assessing tax risks in real time or at the time that the tax return is lodged. The ACA is currently available only to the top 50 companies, based on turnover. To enter an ACA, a company must have sound tax risk management processes and a commitment to full and true disclosure of all relevant and material facts.<sup>23</sup>

### The Netherlands

The Netherlands is another frontrunner in developing approaches based on co-operation between the tax authority (the Tax and Customs Administration—TCA) and taxpayers. Indeed, this appears to reflect a broader and deeper

culture of dialogue between government and major civil organizations aimed at consensus within Dutch society, known as the Dutch Polder model of dialogue. Underpinning this model is the belief that “[t]he Dutch Government and its citizens are well aware of the fact that they depend on each other to accomplish great things.”<sup>24</sup>

In the tax field this culture has manifested itself in a program of “horizontal monitoring” introduced in 2005. This programme “entail[s] mutual trust between the taxpayer and the TCA, clearer articulation of each other’s responsibilities and means of enforcing the law, and the establishment of and compliance with reciprocal agreements.”<sup>25</sup> The TCA started off by launching a pilot project for 20 very large companies, most of them listed, followed by another group of 20 companies in 2006.<sup>26</sup>

Under this program individual companies and the TCA conclude so-called “supervision agreements” (or “enforcement agreements”). On conclusion of such agreements, steps are taken to settle existing open issues, thus clearing the way for the relationship between the two to be governed by the principles and processes agreed on and embodied in the agreement. The board of the TCA demands from the company at board level to commit itself to full transparency on current tax issues, and, in return, the TCA will give its binding opinion on issues that arise expediently. Companies should benefit from legal certainty and significantly reduced vertical supervision which translates into reduced administrative burdens. The TCA, on the other hand, should benefit from avoiding devices normally combated through vertical supervision, and also from spare capacity from the reduced vertical supervision which can then be directed toward less compliant taxpayers.<sup>27</sup> In 2007, the first part of the pilot was evaluated, and, as the results were positive, the Netherlands is reported to be encouraged to move forward along this road.<sup>28</sup>

As can be seen, this program is based on trust, co-operation, and reciprocity. This brief overview should be enough for one to note that the Dutch enforcement arrangements and the Australian FCAs “in general . . . are based on the same premises.”<sup>29</sup> The two approaches differ, however, in one important respect. As noted, to enter the FCA program, the Australian authorities must be satisfied that the company in question has sound tax risk management processes and a commitment to full and true disclosure. Also, due diligence is carried out to determine the relevant tax risks.

In the Netherlands, no such conditions are imposed, and the emphasis, therefore, is even more firmly placed on trust. Happé concludes that the enforcement agreement is more akin to a “co-operation pact,” while the FCA is more akin to a “legal agreement.”<sup>30</sup> On the other hand, the Dutch system is not devoid of any monitoring. The TCA requires the company to set out a tax



control framework, and this is the main vehicle for monitoring by checking on internal risk control models. In interviews with large corporates, the TCA has used Simon's "levers of control" to provide a structure within which to discuss core values and norms and the way in which these are built into internal control systems.<sup>31</sup>

### **The U.S.**

There is considerable interest in co-operative approaches in the U.S. too. The LMSB Commissioner Frank Ng asked the IRSAC, LMSB Subgroup when preparing its Annual Report for 2008 "to focus its efforts ... on (a) improving identification and management of tax compliance risks, and (b) improving transparency through the development of an enhanced relationship between LMSB and taxpayers." The IRS has adopted, in fact, a number of compliance risk management strategies over the years based on a co-operative model including the Compliance Assurance Program (CAP), the Limited Issue Focus Examination (LIFE), the Prefiling Agreement Strategy (PFA), the Fast Track Settlement Strategy (FTS), and the Joint Auditing Planning Process (JPP). As noted, the present focus of the LMSB is on improving current programs rather than creating new ones.

CAP and LIFE are discussed here briefly, given that they were singled out by the IRSAC as having parallels with the RRA. CAP, which currently has about 100 participants, was used in the OECD Study as an example of a business model aimed at improving the tax system through greater co-operation. It was described in IRS Announcement 2005-87 in the following terms:

"The CAP requires extensive cooperation between the Service and participating taxpayers. Throughout the tax year, these taxpayers are expected to engage in full disclosure of information concerning their completed business transactions and their proposed return treatment of all material issues. Participating taxpayers that resolve all material issues will be assured, prior to the filing of the tax return, that the Service will accept their tax returns, if filed consistent with the resolutions..., and that no post-filing examination will be required. If all issues cannot be resolved prior to the filing of the return, the program will identify the remaining items that will need to be resolved through traditional examination processes."<sup>32</sup>



The introduction of LIFE was announced in 2002, by means of IRS Announcement 2002–133:

“This initiative will involve a formal agreement, a Memorandum of Understanding (MOU), between the IRS and taxpayer to govern key aspects of the examination. The MOU will contain dollar-limit thresholds, established on a case-by-case basis, below which the IRS will agree not to raise issues and the taxpayer will agree not to file claims. This will create, with the taxpayer’s assistance, an atmosphere where the examination process is less difficult, less time-consuming, less expensive, and less contentious for all involved. Working together, both the IRS and the taxpayer will focus their resources and time on the issues most significant to the return under examination.”

### **The U.K.**

In November 2006, HMRC launched its Review of Links with Large Business project, known as the Varney Review, which aimed at creating a relationship based on trust and understanding between large corporate taxpayers and HMRC.<sup>33</sup> More specifically, HMRC put forward proposals designed to achieve four desired outcomes: greater certainty, an efficient risk-based approach to dealing with tax matters, speedy resolution of issues, and clarity through effective consultation and dialogue. The proposals, which all sought to contribute toward the enhanced relationship, included the introduction of a system of advance rulings, the extension of the then current clearance system, a new approach to transfer pricing enquiries, a clear process for the quick and efficient resolution of issues, a new consultation framework, improved guidance, and the RRA.

The stated aim of the RRA is achieving a “more cost effective use of resources and efficient resolution of issues.”<sup>34</sup> Under the RRA, each company within the LBS is awarded a risk rating, which determines the volume of HMRC’s interventions in the company’s affairs and the nature of the working relationship between the two. In essence, a light touch is adopted for low risk companies, thus releasing resources that can be directed toward higher risk companies.<sup>35</sup> Risk here is “compliance risk,” defined by HMRC as “the likelihood of failure to pay the right tax at the right time, or of not understanding what the right position might be.”<sup>36</sup>

The practicalities of the enhanced relationship are set out in HMRC guidance. The version in use during the time covered by the Main Survey was published in December 2007.<sup>37</sup> Since completion of the Main Survey, revised guidance has been published in May 2009.<sup>38</sup>

## **Methodology**

### **Overview of Surveys and Related HMRC Research**

The Main Survey, which is the primary foundation of this article, collected the views of tax directors by way of in-depth, face-to-face interviews conducted in the spring of 2008 with representatives of 30 corporate groups, comprising FTSE 100, FTSE 250, and unlisted companies. The interviews focused on the workings of the Large Business Service (LBS), which manages the affairs of the largest U.K. businesses.<sup>39</sup> The questions were designed to elicit the experiences and opinions of large business representatives with respect to the Risk Rating Approach (RRA), a key feature of the Varney Review, as well as the status of relationships between HMRC and large business more generally. The survey next sought respondents' views on the practical implications of two developing legislative approaches—targeted anti-avoidance rules (TAARs) and principles-based legislation (PBL)—and how these approaches impact on and are influenced by relationships between HMRC and large businesses. The primary, but not exclusive, focus of this paper is the portion of the Main Survey that explored the RRA.

Brief reference is also made herein to two pieces of research commissioned by HMRC and carried out in 2007 by market research firms on the experience of large business customers, including key aspects of the Varney Review. Summary results were published by HMRC in January 2008.<sup>40</sup> A full report on one of the two pieces of research was published after the Main Survey interviews had been completed.<sup>41</sup> The authors understand that the other research results will not be published.

### **Survey Design**

The Main Survey was designed in early 2008, the goal being to interview tax directors from a robust sample of U.K. based companies of sufficient

size to be covered by the LBS. Formal approval from the University of Oxford's Research Ethics Committee was obtained in March 2008, and interviews were carried out in April–June 2008. The Main Survey followed from and built on the smaller Pilot Survey, which was designed and implemented in 2007.<sup>42</sup>

A key feature of both surveys was the use of detailed, hypothetical tax planning scenarios, around which a series of semi-structured questions were asked by two of the present authors, bringing practical and academic experience on various aspects of tax law, corporate law, and corporate governance. In addition to asking more general questions regarding firms' risk ratings, the relevant risk criteria, and the perceived effectiveness of the RRA, the authors used the scenarios as a foundation for obtaining detailed, practical views on the respondents' approaches to tax planning—and, accordingly, a key element of each respondent's risk profile. The use of detailed legal scenarios distinguishes this work from the research carried out by HMRC and, indeed, from any other research of which the authors are aware and defines the methodological approach to this qualitative survey.

In both the Pilot Survey and the Main Survey, two tax planning scenarios were sent to each interviewee a few days in advance of his or her interview. These scenarios had been designed earlier by the authors, vetted separately with tax experts from our steering committee (two tax directors and a chartered accountant specializing in tax), and subsequently revised for use in the interviews. In addition, a catalogue of standard questions was prepared and tested with the same three experts and with one tax solicitor.

The two scenarios used in the Pilot Survey are not discussed in this paper. The two scenarios used in the Main Survey are summarized only briefly here.<sup>43</sup> Each scenario involved some element of tax planning the effectiveness of which could have been affected by recent or proposed anti-avoidance legislation in the U.K. Each was based on examples discussed in HMRC publications, with additional details provided in order to make the scenarios more realistic. The goal was to move beyond generalities in order to understand how businesses might assess and react to specific tax planning opportunities and to compare such assessments and reactions to the academic and policy commentary on tax avoidance and tax risk. A further goal was to draw connections between these results and the conclusions regarding firms' risk ratings and relationships with HMRC.

## Sampling, Implementation, and Analysis

### Pilot Survey Sample

One purpose of the Pilot Survey was to test the use of detailed legal scenarios as the basis of discussions with tax directors, and to determine whether active, in-depth interviews on these subjects would elicit responses that could reasonably be quantified or generalized. As such, a rigorous sampling methodology was not pursued in the Pilot Survey. A letter was sent to the “Hundred Group,” comprising FTSE 100 companies only, and interviews were carried out with tax directors from the nine companies which volunteered.

### Main Survey Sample

Although the results of the Pilot Survey were interesting, the reliability of the research was hindered by selection bias and by the small sample size. For the Main Survey, the authors assembled a larger and more varied pool of survey respondents using a combination of random and “purposeful” sampling. As observed by Patton:

“The logic and power of purposeful sampling derive from the emphasis on in-depth understanding. This leads to selecting *information-rich* cases for study in-depth.”<sup>44</sup>

The respondents consisted of tax directors from eight of the nine companies that participated in the Pilot Survey, 21 other companies from a short list selected randomly from the FTSE 350 list, and one unlisted company.<sup>45, 46</sup> The companies short-listed randomly received a letter. Seventeen companies responded and agreed to be interviewed. Others from the random sample did not respond to the initial letter but were contacted by telephone and then agreed to be interviewed. In all, 19 companies from the FTSE 100, 10 from the FTSE 250, and one unlisted company were interviewed. Twenty-seven of the companies interviewed are dealt with by the LBS.<sup>47</sup> Of the remaining three companies, two had been informed that they would be moved into the LBS soon. One of the 27 companies in the LBS at the time of the interview had been informed that it was being moved out. One high-level LBS official was interviewed in order to clarify some points of fact and obtain a balancing view.

The main disadvantages of using this partly purposeful sample are, first, that not all participants were randomly selected, and, second, that

there was a disproportionate representation of very large companies (those from the FTSE 100) compared to the population covered by the LBS. The overwhelming advantage of this sample is that most of the respondents had practical experience or general awareness of the issues which our interviews sought to explore. Although the authors cannot be absolutely certain that the Main Survey sample was representative, it is comforting that the distribution of responses regarding firms' risk ratings was in line with HMRC expectations and with official figures published in July 2008.<sup>48</sup>

Regarding firm size, the authors found it difficult to obtain participation from any companies in the FTSE 250, let alone companies below this level of market capitalization. Most such companies indicated that they were not aware of or interested in HMRC's enhanced relationship model or novel approaches to anti-avoidance legislation. It is notable that the research commissioned by HMRC similarly found that "[i]n practice, the extent of awareness and understanding of the Review of Links among participants prior to the research was limited."<sup>49</sup> Moreover, companies having a market capitalization below that of the FTSE 250 are unlikely to have internal tax departments and, therefore, tend to rely on external tax advisers.<sup>50</sup> The authors decided to restrict this research to the views of tax directors operating within large corporate groups, although the approach used here could be extended to external tax advisers as well.<sup>51</sup>

### **Conduct of Interviews**

The authors' primary goal in conducting these interviews was "to generate data which give an authentic insight into people's experiences."<sup>52</sup> It was decided that the only way to achieve this was to conduct face-to-face, semi-structured interviews with individual respondents. The other obvious options—focus group interviews and telephone or postal surveys—were discounted at an early stage. The use of focus groups almost certainly would have resulted in a lack of candor and completeness, given the sensitivity around corporate tax risk profiles and avoidance activities.<sup>53</sup> Respondents would have been concerned to protect their firms' legal positions vis-à-vis HMRC and competitive positions vis-à-vis other participating firms. The use of telephone or postal surveys, on the other hand, would have demanded short and quantifiable answers that would have revealed none of the nuance and controversy surrounding the meaning of "tax compliance," "tax aggressiveness," and "tax reputation." As these shades of meaning were precisely what the research was designed to explore, in-depth interviews were seen as the best choice.

The survey was carried out by means of interviews of about 1 hour conducted by two of the present authors. There was an interview schedule and a catalogue of standard questions, but the interviews were semi-structured, allowing the interviewees to focus on matters of importance to their companies. This flexibility permitted the interviewers to steer the interviews away from broad generalizations to a more meaningful and concrete exchange. It also facilitated the attainment of a satisfactory depth of discussion. On the other hand, it meant that not all issues were discussed for the same length of time and in the same amount of detail with all interviewees.

One further feature of the interviews was that the questions asked, and the issues discussed, often did not lend themselves to an easy “yes” or “no” answer. This again led to very engaging discussions. Yet this meant that some respondents did not always provide direct answers to the questions asked. These interviewees at times responded by providing examples, recounting an anecdote, or speculating about the general view of tax directors. In the light of all this, the authors note the difficulty at times encountered in determining the exact view of an interviewee on a particular issue. The authors have erred on the side of caution, by, for example, not attributing any specific views to the interviewees unless this was clearly stated or implied in the answers given. If a respondent’s answers only provide vague support for a view, then that is what is stated in the paper.

### **Analysis of Interviews**

The authors concede that it is impossible to create a “pure” interview that would provide an exact reflection of reality in this or any other area. However, the authors were satisfied that active, in-depth interviews could and would elicit “authentic accounts of subjective experience” regarding tax risk, tax avoidance, and the other matters discussed.<sup>54</sup> Interviews were not electronically recorded—again to encourage candor from participants—but the two interviewers took extensive notes which they transcribed and cross-checked as soon as possible following each interview. The transcribed interviews were then coded for particular views in respect of particular themes, following typical procedures, although, given the highly nuanced and active nature of the interviews, no attempt was made to force respondents’ answers into rigid categories.<sup>55, 56</sup> The authors coded the interviews independently, and any discrepancies were resolved by consensus following re-examination of the original interview notes.

Therefore, while the authors attempted to put order to the answers given, to aggregate views, and to draw out some main and subsidiary themes, this research remains very much of a qualitative and not a quantitative nature.

## **Summary and Analysis of Main Survey Results**

### **Risk Rating and the Relationship Between HMRC and Large Businesses**

#### **Overview of the RRA and Note on Disclosure Regime**

As mentioned above, one of the four desired outcomes of the Varney Review is “an efficient risk based approach to dealing with tax matters,” which now exists in the form of the RRA.<sup>57</sup> Under the RRA, each company within the LBS is assigned a risk rating on various specified criteria, as well as an overall risk rating. That overall rating determines the volume of HMRC’s interventions in the company’s affairs and the nature of the working relationship between the two. Risk here is “compliance risk,” defined by HMRC as “the likelihood of failure to pay the right tax at the right time, or of not understanding what the right position might be.”<sup>58</sup>

The stated aim of the RRA is achieving a “more cost effective use of resources and efficient resolution of issues.”<sup>59</sup> It is clear from the published documentation, however, that HMRC also view the RRA as a means of incentivizing companies to alter their behavior in terms of transparency, governance, and tax planning. It can thus be characterized in part as an administrative route to control tax avoidance. For example, HMRC’s documentation speaks about having “encouraged businesses to consider their positions by defining the benefits of being low risk.”<sup>60</sup> The theory, at least, is that each company is free to behave in the way it chooses, which will result in a particular position on the risk rating spectrum. If it makes choices that result in it remaining on the higher end, it will simply forfeit the benefits of being low risk.

The RRA, in conjunction with new legislative approaches for controlling tax avoidance, contains two aspects of HMRC’s multi-pronged approach to dealing with tax risk. They need to be seen against a background of a third prong: namely, the U.K. disclosure regime. That regime was introduced in 2004 with limited scope and was widened in 2006 to cover the whole of income tax, corporation tax, and capital gain tax. It takes some characteristics from U.S. disclosure requirements but differs in some respects.

Under the disclosure rules, a tax arrangement must be disclosed when it will, or might be expected to, enable any person to obtain a tax advantage, and that tax advantage is, or might be expected to be, the main benefit or one of the main benefits of the arrangement, and it is a tax arrangement that falls



within hallmarks prescribed in the relevant regulations.<sup>61</sup> In most situations where a disclosure is required, it must be made by the scheme promoter (a defined term) within 5 days of it being made available. However, the scheme user must make the disclosure where the promoter is based outside the U.K., the promoter is a lawyer and legal privilege applies, or there is no promoter. A person who designs and implements his or her own scheme must disclose it within 30 days of implementation.

The hallmarks are: a wish to keep the arrangements confidential from a competitor and/or HMRC; arrangements for which a premium fee could reasonably be obtained; arrangements that include offmarket terms; arrangements that are off-the-shelf products; loss schemes; and certain leasing arrangements.

Disclosed schemes are given a number by HMRC, and this number must then be included on the tax return of each user. Thus, it can be seen that a considerable measure of transparency is required by the law—further transparency requirements discussed as part of the RRA go beyond this.

### **Summary of Views**

The respondents in the Pilot Survey agreed with the RRA in principle, but a large majority raised serious questions about its details and practical operation.<sup>62</sup> These reservations primarily concerned the risk rating criteria and the purported benefits of being low risk. The details of the RRA, however, had not been fully developed at the time of that survey. For the purposes of the Main Survey, the authors were interested in finding out whether the uncertainties had been overcome and how the approach was translating into practice. Initial implementation of the RRA for companies within the LBS was largely complete at the time of the Main Survey interviews.<sup>63</sup>

The Main Survey indicated that the respondent firms were split fairly evenly between those that are low (or lower) risk and those that are high (or higher) risk. The Main Survey revealed modest improvement in respondents' comprehension of the risk rating criteria and their relative weight, yet some confusion and scepticism remained. Most importantly, the results supported the view that the RRA should lead to a better allocation of resources within HMRC, and possibly a change in taxpayer behavior in terms of transparency and openness, but also indicated that the RRA is unlikely to change the attitude of specific corporate taxpayers toward tax avoidance.<sup>64</sup> The results also suggested that, while firms have wider reputational concerns associated with public perceptions of their tax planning activities, the extent to which reputational concerns limit a given company's tax planning behavior is far from obvious. The possible lack of incentives for some large businesses to



do what is necessary to become low risk under the RRA has serious implications for the success of the Varney Review. Each of these results is discussed in more detail below.

### **Reported Risk Ratings**

As noted above, companies are given a risk rating on specific criteria as well as an overall rating under the RRA. A high-ranking official from the LBS explained to the authors that there are only two overall ratings a company can obtain—“low risk” and “higher risk”—but, as explained below, there was some confusion about this among respondents.<sup>65</sup> Guidance published more recently by HMRC (well after the interviews were completed) has changed the risk terminology to “low risk” and “non-low risk” and endeavors to make clearer the fact that a company may be assigned only one of these overall risk ratings.<sup>66</sup>

The responses given in the Main Survey showed that the firms interviewed were spread quite evenly along the risk rating spectrum. A small number of the companies interviewed were, at the time, still to undergo a risk rating assessment. Of those that had received a risk rating, some reported a single overall risk rating—these were divided almost equally between low and higher risk. Some interviewees spoke of different gradations within the “higher risk” category, such as “moderate risk,” although there is no recognition of such gradations in the HMRC guidance. The remaining respondents merely said that they obtained different ratings on the different criteria. They again split quite evenly between those that seemed to lie closer to the lower end of the spectrum and those that seemed to lie closer to the higher end.<sup>67</sup>

These findings are in line with HMRC’s stated expectation that, by March 2008, nearly 40 percent of risk-rated companies would be low risk.<sup>68</sup> Interestingly, most interviewees were not surprised by this 40 percent figure, tending to relate it to the relatively “small” size of many companies covered by the LBS. There appeared to be a belief among some of the respondents that there is a correlation between high risk and large, complex companies. This is despite the fact that HMRC claim that large, complex companies may be low risk and that, even within the sample, a number of large, complex companies are in fact low risk or on the lower end of the scale. It remains to be seen whether the Guidance published more recently by HMRC will affect the views of large businesses with respect to this issue. The authors submit that, in view of the apparent concern of some firms that there is a correlation between size and risk and HMRC’s contrary position, it would be useful if HMRC could provide a breakdown of risk ratings by size of company.

### **Risk Rating Criteria**

The criteria used for assessing compliance risk under the RRA can be divided into two general groups: structural or inherent and behavioral.<sup>69</sup> Inherent risks consist of change, complexity, and “boundary issues” (by which HMRC mean issues arising from international relationships and transactions), while behavioral risks include corporate governance, delivery, and tax strategy.<sup>70</sup> A final, overarching risk criterion is “contribution.”<sup>71</sup>

The results of the Pilot Survey suggested that it was unclear whether the existence of structural issues or their management was more important and thus whether companies of a certain size and complexity could ever be low risk.<sup>72</sup> Most of the interviewees assumed that inherent factors were more important to the risk rating process. Following recommendations made by the authors and others, HMRC have attempted to convey more clearly the message that behavioral factors carry greater weight than inherent factors, which they maintain has always been the case.<sup>73</sup>

A majority of the Main Survey interviewees seemed to believe there had been a change, with some expressly noting the evolution of the approach.<sup>74</sup> Other respondents were less clear in their answers regarding the risk rating criteria, simply observing that both structural and behavioral issues are important.<sup>75</sup> The remaining few interviewees, all from large and complex companies, and all higher risk, acknowledged that HMRC assert that large multinationals can be low risk but remain skeptical. Two further interviewees believed that large multinationals cannot be low risk because they were told so by HMRC staff. This brings to light a problem noted by some other respondents, namely, that the attitude regarding the RRA may not have filtered down from the top at HMRC. Evidently, the success or otherwise of risk rating will depend critically on the extent to which HMRC personnel having direct contact with large businesses understand and adopt the elements of the approach.

### **Tax Strategy and the Centrality of Tax Planning**

One of the three behavioral criteria noted above is a company’s “tax strategy.” An important aspect of this criterion is a company’s attitude to tax planning and avoidance, as made clear in the HMRC Guidance.<sup>76</sup> If large multinationals are to be low risk, then tax planning could be the most important risk criterion in a considerable number of cases. These firms can never be fully low risk on inherent factors, and can thus only bring down their overall ratings by becoming low risk on behavioral factors: governance, delivery, and tax strategy. None of the interviewees in either the Pilot Survey or the

Main Survey said that they wanted to be anything other than low risk on corporate governance and delivery. Indeed, becoming transparent and putting good internal systems in place are aspects of the Varney Review that most, if not all, the interviewees seemed to agree with. It follows that, if companies manage to bring down their risk ratings on the other behavioral factors, their overall risk ratings will hinge on their attitudes to tax planning.

The correlation between risk rating and tax planning behavior is evident from the Main Survey, in that most of the FTSE 100 respondents reporting a broadly low risk rating appeared to eschew activity that they described as “aggressive tax planning.” Several other respondents stated that, while they aspire to transparency and real-time disclosure, they also want to be free to engage in tax planning that is legal and believed to be technically effective—even if HMRC may dislike it. Thus, transparency, disclosure, and robust compliance systems were seen to be reasonable requirements, but engaging in tax planning was seen by a number of the interviewees as something the company has a right to do and purely a matter of cost/benefit analysis. Some of these interviewees made it clear that, although they knew that they could reduce the company’s risk rating by altering its tax planning behavior, they were resolutely unwilling to do so. This important conclusion is broadly supported by the research carried out on behalf of HMRC.<sup>77</sup>

Other factors taken into account by HMRC when assessing the tax strategy criterion are whether the company’s strategy is documented, the extent to which tax planning is articulated in it, and the board’s awareness of it.<sup>78</sup> HMRC view a board approved tax policy, as well as board engagement on tax matters, as features of good corporate governance.<sup>79</sup> The Risk Management Report states that a business that is successfully managing tax risk will have, among other things, “strong governance, with a clear tax strategy and principles set by its Board, and well-defined accountabilities, roles, and responsibilities that are understood throughout the business.”<sup>80</sup>

A great majority of the interviewees stated that their companies had a tax policy or a tax strategy, almost all approved by their boards.<sup>81</sup> While tax policies and strategies are common, it would seem that the former can often be too vague and general to have much practical significance. All but one of the high risk companies in the sample had a tax policy or strategy.<sup>82</sup> Also, all but one of these companies claimed to have formal or informal decision making/review processes which involved the board or board members.<sup>83</sup> A few described the view that their boards might not be aware of the tax planning undertaken by their tax departments as “naive.” These results indicate that companies engaging in non-conservative tax planning may nevertheless have corporate governance procedures in relation to tax matters.<sup>84</sup> The

survey, however, did not investigate the adequacy and robustness of such processes, in particular the ones of an informal nature. With that caveat, the findings of the Main Survey support the view that tax planning behavior could be the paramount risk rating criterion in a significant majority of cases involving large, complex multinationals.

### **Benefits of a Low Risk Rating**

HMRC set out their view of the benefits of being low risk in the *Risk Management Report* and again in considerable detail in the December 2007 Guidance. In essence, low risk companies are to benefit from a light touch approach, while higher risk companies will be the subject of “more intensive scrutiny.”<sup>85</sup> A majority of respondents in the Pilot Survey could not see the benefits of being designated low as opposed to higher risk. Some observed that low risk companies are meant to enjoy a light touch approach but were sceptical about that happening in practice.

In contrast, about half of the interviewees in the Main Survey affirmed the benefits of being designated low risk.<sup>86</sup> The identified benefits included being subject to fewer inquiries, obtaining formal and informal clearances with greater ease, being approached by HMRC with less suspicion, a real-time working relationship, and quicker resolution of disputes. Only two respondents said that they were unclear about the benefits of being low risk. The remaining interviewees were aware of the benefits, but did not think they were sufficient to induce them to alter their tax planning behaviors and thus become low risk.<sup>87</sup> Some of these respondents said that the benefits are “intangible”; others said that they could be tangible but still would not justify altering their behaviors. All of these interviewees were rated higher risk, apart from one whose company was yet to be risk rated. They observed that one has to weigh the costs against the benefits of becoming low risk. If the benefits do not outweigh the costs, then they would not undertake the necessary changes to become low risk. Obviously, this has repercussions for the fulfillment of some of the goals of the RRA.

### **Reputational Risk and Related Concerns**

Another issue discussed with some interviewees was whether the influence of shareholders, investors, or even the wider community makes a difference to tax planning behavior. A number of reports have elaborated on the way in which efforts by companies to understand and manage tax risk can enhance shareholder value.<sup>88</sup> Others have suggested that a company’s approach to taxpaying and tax planning are relevant to its broader Corporate Social Responsibility (CSR).<sup>89</sup> HMRC’s effort to bring tax into the boardroom

could thus be seen, in part, as an attempt to encourage directors to consider what their duties to shareholders and stakeholders at large, require of them in terms of tax and tax planning.

These issues were investigated in the Pilot Survey and were revisited with some of the Main Survey respondents, although this was not a focus of the Main Survey.<sup>90</sup> The limited number of interviewees with whom these issues were discussed means that the results must be assessed with caution. With that caveat, the results seem to confirm that companies do not see tax as a CSR matter in the broad sense, that is, as defined by the European Commission: “enterprises deciding to go beyond minimum legal requirements and obligations stemming from collective agreements in order to address societal needs.”<sup>91</sup>

Nevertheless, the Main Survey provided some indication that tax matters can give rise to reputational concerns. For the minority of interviewees with whom this issue was discussed, CSR seemed to be on the agenda in the narrow sense, that is, in the sense of a director’s duty to take into account wider interests to the extent that this furthers the maximization of shareholder value over time.<sup>92</sup> In particular, a majority of respondents who discussed this point seemed concerned about reputational repercussions if their tax planning were subject to negative press coverage.<sup>93</sup> It is notable that some of the respondents who expressed concern about negative press coverage did not fully articulate how this could be damaging. One reason could be that there is a general lack of knowledge and research on the effect of negative press on corporate profits and share price. In addition, respondents’ views could have been influenced by negative (and in fact incorrect) press coverage of some tax planning undertaken by a large corporation and a subsequent libel action, which was continuing at the time the interviews were carried out.<sup>94</sup>

Given that the coverage was subsequently corrected, an apology issued, and the libel action settled, this may have been a temporary effect. Indeed, the editor of the national newspaper concerned has argued that the company’s willingness to litigate may have made it harder for the media to investigate such issues.<sup>95</sup> Reputational concerns are therefore often relevant, but the public reaction to engagement in legal tax planning is unlikely to be clear cut, given that attitudes to tax are wide-ranging and also given that the media may have considerable difficulties understanding and reporting complex tax issues. All this makes the impact of reputational risk far from straightforward. Further research is needed on the question of the impact of negative press coverage regarding a company’s tax planning on its profits, share price, and general reputation, but such research is likely to be difficult to structure and conduct.<sup>96</sup>

**Relationship with HMRC**

The RRA is only one of the desired outcomes of the Varney Review, the other three being certainty, speedy resolution of issues, and clarity through consultation. All four contribute to the ultimate aim of the Varney Review, namely, improving the relationship between HMRC and large business. One cannot assess the effect of one without at least considering the others.

One of the more positive findings of the Main Survey was that most of the interviewees said either that they enjoy a good relationship with HMRC or that the relationship between the two has improved recently.<sup>97</sup> Critical to this positive relationship was the competence of the firm's "Customer Relationship Manager" (CRM), who acts as a first point of contact with HMRC.<sup>98</sup> Respondents from both low and higher risk companies noted an improvement in the openness of the relationship, in the speed with which issues are resolved, and in the focus on the more important issues.<sup>99</sup> The focus on important issues, in particular, marks a clear difference from the past. Interviewees in the Pilot Survey had complained about HMRC being indiscriminate, often demanding voluminous documentation in areas where the risk and the amount of tax in question were low. In the Main Survey, both low and higher risk companies commented on an improvement in this respect. This is, of course, to be expected for low risk companies. However, HMRC are committed to speedier resolution and focusing their interventions on areas of significant risk even for higher risk companies.<sup>100</sup>

The relationship between HMRC and large businesses thus seems to be moving in the right direction, but there is a need for further work. A few interviewees first noted the improvement, then hastened to add that there is still some way to go. One respondent commented that HMRC still tended to react aggressively when challenged. Another observed that, while HMRC have been very good at dealing with small, less significant issues, it remains to be seen how they act when dealing with the larger, more significant issues.

**Evaluation and Conclusions**

The goals of the RRA are more cost-effective use of resources, more efficient resolution of issues, and more incentivizing of companies to alter behavior with respect to transparency, governance, and tax planning. The Main Survey results support the view that the RRA should lead to

a better allocation of HMRC resources and possibly an improvement in taxpayer transparency and disclosure, but also indicate that it is unlikely to change the attitudes of some large businesses toward tax planning.

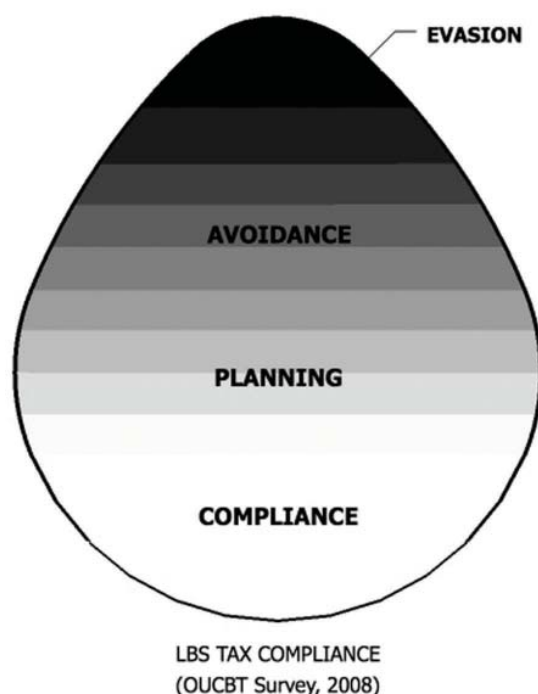
Two features must be present for an alteration of tax planning behavior to occur. First, all types of company, whatever their size and complexity, must be able to become low risk. Whether this was possible was still uncertain at the time of the Pilot Survey, but HMRC have gone some way in clarifying the ability of large multinationals to be low risk, both before and since the Main Survey. Second, the incentives to make the necessary behavioral changes must exist. HMRC have clarified the benefits of being low risk, yet a number of interviewees from higher risk companies stated either that they cannot see what the benefits are, or that these benefits are not substantial enough to justify altering their planning activities, even when taking reputational concerns into account.

Company management ultimately applies a cost/benefit analysis to this question. If the benefit of being low risk (savings made through certainty and lighter engagement with HMRC) do not outweigh the costs (foregoing the savings made from tax planning), then companies will simply not have sufficient incentives to make the necessary changes to become low risk. This is particularly so when the question of where the boundary of the law lies is still, often, very indeterminate.

As noted earlier, Braithwaite has described the pattern of large business compliance as being egg-shaped rather than pyramidal as is the case with individuals. This is due to the large numbers of corporate taxpayers falling into the gray area of tax avoidance. Clearly, for companies positioning themselves in this area, the costs do not as yet outweigh the benefits of engaging in such behavior. Again, however, one should not forget that the category of behavior Braithwaite labels as gray is neither homogenous, nor are its boundaries clear cut.

The diagram in Figure 2, adapted from Braithwaite's by the authors, is intended to reflect the different gradations within the gray area, which we take to cover the whole range of what may be generically termed "avoidance." Taxpayers can lie along a whole spectrum of positions between those who will not take any risk of not being compliant to those prepared to engage in aggressive, highly artificial avoidance. Transactions can move away from clear compliance to a position that takes a "reasonably arguable position" through to highly artificial transactions which involve non-commercial steps and are less and less acceptable to the revenue authorities.



**Figure 2. Compliance Diagram with Gradations**

The diagram in Figure 2 reflects the view of the authors that the distinction between evasion and avoidance remains, and should remain, a firm one. The boundary between avoidance and compliance is less clear at times because the law can be uncertain. To complicate matters, and to show the frequently porous nature of these categories, transactions that revenue authorities, and indeed other observers, may classify as aggressive avoidance may be declared perfectly valid, and thus compliant, by courts.

### **Targeted Anti-avoidance Rules (TAARs) Principles-Based Legislation (PBL)**

#### **Objectives**

As discussed in the preceding sections, a major part of the Main Survey concerned the application and import of the RRA. Given the importance of a firm's tax planning to its perceived risk profile, the authors see the issues



surrounding the RRA as being related to the manner in which relevant anti-avoidance legislation is conceived, drafted, and applied. TAARs and PBL provide more scope for revenue discretion than prescriptive legislation does, and, accordingly, if they are to work in the context of a low risk relationship, they demand greater trust from businesses that revenue interpretations will be generally consistent with their own. This hypothesis was corroborated in the Main Survey interviews. Detailed tax planning scenarios were used in order to understand how large businesses would assess and react to TAARs and PBL as a practical matter and to draw connections between these results and the conclusions regarding tax risk and relationships. This aspect of the Main Survey is discussed only briefly here.

### **General Comments on the Nature and Impact of TAARs**

The targeted approach to curtailing unacceptable tax avoidance represents a middle route between the application of a general anti-avoidance rule (GAAR) (whether legislated or judicially created) and the use of detailed technical measures to counter every transaction that is considered unacceptable. HMRC has stated that “TAARs aim to strike a balance between generality and specificity.”<sup>101</sup> The TAAR concept is not new, but it appears that the terminology has only recently been adopted by HMRC and Treasury.<sup>102</sup> Unlike detailed prescriptive legislation, TAARs and GAARs usually place significance on the main purpose or purposes for carrying out a transaction.

Tax directors in the Main Survey were asked which TAARs they had encountered in practice and whether they viewed the introduction of new TAARs positively. While not every respondent had dealt with the actual application of TAARs to transactions carried out by his or her firm, all agreed that existing TAARs could potentially affect a variety of transactions that they undertake. The degree of concern regarding TAARs varied. A majority of interviewees emphasized that some TAARs are too general, too vague, or too opaque, such that they threaten what these interviewees often described as “legitimate commercial transactions.”<sup>103</sup> A minority felt that there was always a risk of TAARs applying to transactions they undertake.<sup>104</sup> Yet they do not worry much about that risk because they are confident in the commerciality of their activities. It is notable that most of the tax directors in the last group were from companies that have been rated by HMRC as low risk, companies on the lower end of the risk spectrum, or smaller firms without much knowledge about the scope of TAARs.

Most interviewees also commented on the complexity and uncertainty of U.K. tax legislation, with TAARs and detailed anti-avoidance rules being illustrations of such problems. Interviewees identified various causes

of legislative complexity and instability, including a constant thirst for tax reform by HMRC and Treasury, often described as legislative “tinkering”; an increasingly global and sophisticated business environment; and a keen desire for tax law to be precise. Twenty-three respondents expressed exasperation with the complexity and unpredictability of current anti-avoidance rules, all but one asserting that this was a phenomenon hindering the competitiveness of the U.K. economy.<sup>105</sup> However, seven other respondents expressly recognized that the responsibility for legislative complexity and change may lie as much with business as it does with government. They conceded that the exploitation of tax minimization opportunities and the demand for legal certainty by businesses have contributed to the current legislative framework. These respondents insisted that complexity in itself has little effect on the competitiveness of the U.K., arguing that legislative complexity follows from the complexity of modern international commerce.

### **Interpretations of Purpose Rules Used in TAARs**

Most TAARs define tax liability by reference in part to the taxpayer’s purposes for carrying out a transaction. This is illustrated by the two provisions that were under consideration in the hypothetical tax planning scenarios discussed in the interviews, which in broad terms disallow a tax benefit where the main purpose, or one of the main purposes, of a particular transaction or arrangement is to obtain that tax benefit.<sup>106</sup>

Two key results emerged from the interviews with respect to TAARs purpose tests. First, there was a preference among the interviewees for the use of common language across the various purpose tests. No interviewee could identify the practical difference between a primary purpose and a main purpose, nor could any interviewee explain how he or she would distinguish among a purported multiplicity of “main purposes.” Some interviewees simply referred to the *Duke of Westminster* principle, which they took to support the proposition that a taxpayer is entitled to arrange his or her commercial affairs in the most tax-effective manner, and, in doing so, effectively ignored the nuances of purpose tests.<sup>107</sup> Having said that, within the current framework, a large majority of respondents stated that they preferred a single legal test that focuses solely on a taxpayer’s “main,” “primary,” “underlying,” or “overwhelming” purpose behind a transaction.

A key issue raised by a majority of interviewees was the need to preserve a taxpayer’s ability to structure commercial transactions in a tax-efficient manner. Most respondents argued that virtually any commercial arrangement will be structured in a tax-advantaged manner, often stating

that it would be “irrational” or “foolish” to ignore tax considerations. A few respondents asserted that a test based on “one of the main purposes” gives scope to HMRC to insist that taxpayers implement the highest tax comparator transaction.

It was noted that the freedom to structure transactions in a tax efficient way depends not only on the text of relevant TAARs but also on HMRC’s interpretation and application of those provisions. Half of the respondents indicated that they had disagreed with HMRC about the main purpose or purposes of a transaction, or expected imminently to have such a disagreement. Most said that the question whether the presence of some tax purpose takes a transaction offside of TAARs depends on whether HMRC personnel analyzing the transaction apply the rule “sensibly.”<sup>108</sup> They felt that appropriate application of TAARs by HMRC personnel requires a strong appreciation of the business perspective.

### **Nature of PBL**

Various commentators have argued that the ever-increasing spiral of detailed tax legislation, and its attendant lack of certainty, can only be resolved by shifting to an entirely new legislative approach, variously styled as “purposive drafting” or “principles-based drafting.”<sup>109</sup> A purposive rule is still a rule, whereas a principle is something external to the rules, which explains how the relevant rules should be construed. There is an appetite for PBL among policymakers who have grown frustrated with the failures of prescriptive legislation. This appetite is illustrated by various Australian efforts and, more recently, by draft U.K. legislation regarding tax avoidance associated with financial products.<sup>110, 111</sup>

The PBL Consultation Document was issued in December 2007 along with draft legislation, which was revised in February 2008 in response to a series of open day discussions and written representations. At the time of the interviews, the consultations were continuing. After the interviews had been concluded, in December 2008, HMRC published a further consultation document containing further amended draft clauses which take on board some of the points made by the interviewees and others. As the PBL Consultation Document and revised draft legislation on financial products avoidance represent the first express attempt by HMRC and Treasury to enact purposive or principles-based legislation, the survey questions were focused on those proposals. Comments were also welcomed from respondents regarding the merits and challenges of PBL more generally.

**Comments on PBL Generally**

The PBL Consultation Document stressed that a principles-based approach would further the goals of simplicity, certainty, and revenue protection in the U.K. tax system.<sup>112</sup> It also stated that such an approach would promote fairness and consistency in tax treatment. The Main Survey interviews suggested that there is some theoretical interest in a principles-based approach as a means of improving the simplicity of the UK tax system. A majority felt that PBL is a way forward and is worth exploring as an alternative to overly specific prescriptive legislation and overly broad TAARs.<sup>113</sup> They generally agreed that a principles-based approach would further the objectives of simplicity and revenue protection.

These respondents' enthusiasm was tempered, however, by concerns about the need for certainty and appreciation of the business perspective. It was often said that any legislated principles should be "meaningful," "focused," and "clear," and should only be enacted following extensive consultation with stakeholders. Only four of these respondents were optimistic that a principles-based approach could enhance commercial certainty. It is notable that three of these four respondents were from companies that have been rated as low risk by HMRC. The remaining interviewees feared that a move toward PBL would reduce certainty, but they were nonetheless in favor of exploring the approach.

A further five interviewees expressed the opinion that a principles-based approach is, as a policy matter, undesirable. These respondents stated that they preferred explicit legislation and were wary of "legislation by guidance." A few of those opposed to PBL stated that they simply did not trust HMRC personnel to apply broad principles with an appropriate focus or with a consistent view of which planning activities are and are not acceptable. Interestingly, there was no obvious correlation between this view and a firm's risk rating. The remaining five tax directors were agnostic about the merits of PBL or did not express a clear opinion either way.

**Comments on the Draft PBL**

In contrast to the broadly positive comments received about PBL as a new legislative approach, none of the interviewees was happy with the 2007 draft or February 2008 revised draft legislation on financial products avoidance. Most of the concerns from the 22 respondents who had analyzed the legislation fell into two categories: the lack of precision in the stated principle and the lack of effective consultation in the development of the principle.

First, aside from one respondent who felt that the draft legislation was not “ambitious” enough in its scope, most interviewees argued that the draft legislation suffered from a lack of clarity and was, thus, excessively broad and vague. Specifically, nine respondents believed that the way the provisions were drafted—or the way that the draft guidance indicated they would be interpreted—meant that the legislation threatened a variety of “commercial transactions,” which in their view should not be so affected. The remaining interviewees seemed to agree with this view without saying so expressly.

The second and related concern expressed by some respondents (seven) was that there had been a lack of “real” or “effective” consultation regarding the draft legislation.<sup>114</sup> There was a common feeling among these respondents that the push to implement the draft PBL in Budget 2008 was too rushed. Some felt that the consultations only happened after the substantial issues had been decided within HMRC and Treasury. A few respondents suggested that more thorough consultation would result in greater refinement of the stated principle, perhaps to exclude further “commercial transactions” from its scope.

### **Reactions to Scenarios<sup>115</sup>**

The first scenario, for which interviewees were asked to consider both the current TAAR and the draft PBL on disguised interest involved an intercorporate investment in cumulative redeemable preferred shares. The target company was in a long-term loss position, and, accordingly, it was indifferent about paying dividends on equity financing and paying interest on debt financing. Thus, it was willing to offer a preferred share dividend which exceeded what comparable companies might offer and which approached a commercial interest rate. The key questions were whether the investor’s purpose in acquiring the shares would be treated as an “unallowable purpose” under Finance Act 1996 section 91D, or whether the dividends would be considered “economically equivalent” to a loan at interest under the draft PBL.

A substantial majority of respondents stated that this transaction should be permitted as a policy matter. Specifically, 22 respondents said that the “main,” “primary,” or “overwhelming” objective of this transaction was investment.

They felt that this commercial objective was sufficient to make the transaction legitimate. The eight remaining interviewees were ambivalent or equivocal, suggesting that this transaction was probably acceptable but depended on the relative weight of the commercial and tax motivations.

Notably, no respondents said unequivocally that this transaction should be considered unacceptable. Virtually all interviewees tended to apply a main or primary purpose test when assessing the transaction, consistent with the responses summarized above. It is interesting that respondents were generally in favor of this transaction regardless of whether their respective firms had been rated as low risk or higher risk by HMRC.

Most but not all respondents, despite believing that this transaction should be permitted as a policy matter, said that they would be worried about HMRC challenging it under the relevant legislation. Regarding the current TAAR, none felt that the legislation was inapplicable to this transaction, meaning that the different opinions were based on different views of how HMRC would apply the rules. Similarly, most respondents who were familiar with the draft legislation and guidance stated that they would be worried about HMRC challenging this transaction under the proposed PBL. Thirteen interviewees said that they would be more uncomfortable about proceeding with this transaction under the draft PBL than under the current TAAR. A further nine felt it made no difference to the analysis whether one applied the draft PBL or the current TAAR. None of the interviewees said that they would be more comfortable proceeding with this transaction under the proposed PBL, which is perhaps not surprising. An interesting observation made by four respondents was that HMRC routinely used to allow transactions of this nature. They nevertheless conceded that the draft PBL on disguised interest (and, to a lesser extent, the current rules) mandated a different result.

The second scenario, for which only the existing TAAR were in issue, involved a group restructuring. Briefly, the parent company caused a subsidiary to dispose of a variety of shares and assets, some with an accrued gain and some with an accrued loss. The parties negotiated an option for another subsidiary in the group to acquire certain of the transferred shares within 60 days, provided that the market value thereof had not risen or fallen more than a nominal amount. This had the effect of recognizing a capital loss on shares without a permanent change in the ultimate economic ownership of the shares. The question was whether this loss was disqualified as an “allowable loss” under TCGA 1992 section 16A.

Most of the respondents had a more negative view of this transaction compared to the previous scenario, although opinions were not unanimous. Specifically, 18 interviewees felt that this transaction should not be permitted as a policy matter, often describing it as “artificial” or “contrived.” This group invariably said that the main or primary purpose of the arrangement

was loss crystallization rather than commercial divestment. Some said that the presence of the “repurchase” option meant there was no “real disposal” or no “genuine intention” to dispose. Only five interviewees believed that this transaction should be considered acceptable. They emphasized that the latent loss on the shares was a real economic loss. The seven remaining interviewees were ambivalent or equivocal, suggesting that the legitimacy of the transaction depended on the relative weight of the commercial and tax motivations. Interviewees who had a negative view of this transaction were from a mixture of low risk and higher risk firms, while four of the five who expressed favorable views were from higher risk firms. All interviewees, whatever their policy views of this transaction, said that they would be worried about HMRC challenging it under the relevant legislation.

### **Evaluation and Conclusions**

Various commentators have argued that massive increases in the volume and detail of tax legislation have not enhanced legal certainty. Rather, they have achieved the reverse.<sup>116</sup> There is no doubt that some of the difficulty stems from the courts’ traditional insistence on predominantly textual interpretation of taxing statutes, but the attitude of the courts is changing, and much of the responsibility for difficulties in giving legislation a purposive interpretation has been argued to lie with the legislative designers and draftsmen.<sup>117</sup> One way to ameliorate this problem may be to enact further purpose-based TA-ARs, as they depend less on the technical details of a transaction and more on a taxpayer’s purposes in carrying it out. It is far from obvious, however, that the business community views such rules as enhancing commercial certainty. The Main Survey interviews indicated that there is significant concern about the generality and potential vagueness of such rules, particularly the uncertainty regarding how HMRC would apply these rules to what many respondents characterized as legitimate commercial transactions.

As for the principles-based approach, the interviews indicated that there is considerable interest in at least exploring it as a means of improving the simplicity of the U.K. tax system. Most respondents agreed that a principles-based approach would further the objectives of simplicity and revenue protection. Yet opinions were unfavorable when applied to specific draft legislation. Most respondents’ enthusiasm for PBL was tempered by concerns about the need for certainty/clarity and consistency in application, and appreciation of the business perspective. The draft PBL on disguised interest, along with its expected application by HMRC, were considered to fail all three of these criteria.



The desire for certainty/clarity in commercial transactions is understandable. Yet there may be a (perhaps unfounded) belief that such certainty is best obtained via a traditional system of detailed prescriptive legislation. Appreciation of the business perspective by the tax authorities is also important, although one should be careful to distinguish between appreciating the business perspective and agreeing with the business perspective. The desire for consistent application of legislated principles is also fully understandable. It is not surprising that changing policy views on the part of Treasury and HMRC, reflected in frequent amendments to legislation or in altered application of purpose-based TAARs, have led some businesses to lack trust in the tax administration. Without improving such trust, it will be very difficult to gain acceptance of a principles-based system, which evidently relies on administrative discretion to a greater extent than a system of prescriptive rules.

Despite the fact that there was some indication in the interviews that better relationships brought about by the Varney Review have improved commercial awareness within HMRC, the interviews suggest that taxpayer trust has not been enhanced to the point where all large businesses feel comfortable to work with the discretion afforded to HMRC by TAARs and PBL. The negative feedback on current and proposed anti-avoidance legislation suggests that the RRA framework cannot replace the guidance afforded by good statutory provisions.

## **New Developments**

### **May 2009 Guidance**

As noted above, since the completion of the Main Survey, the May 2009 Guidance has been issued, replacing the earlier 2007 Guidance.<sup>118, 119</sup> The May 2009 Guidance states that it has been substantially changed from its predecessor and that the risk assessment indicators have been altered to distinguish more clearly between inherent and behavioral factors. This is portrayed as a presentational difference, a clarification rather than a change of stance. There are indeed presentational differences, but the extent to which there is real change is not clear.

It is clearly stated at the head of the assessment indicators in the new Annex B that:



“A customer may have inherent factors that increase tax compliance risk; however, the customer can still be Low Risk if the behavior, governance, tax strategy, and delivery effectively manage these inherent risks.”

In fact, there was a similar statement in the 2007 Guidance, but it was contained within one of the risk factors rather than stated upfront. This statement and the changes are generally a response to HMRC’s own consultations, which reached similar conclusions to those in both the Pilot Survey and the Main Survey on the need to reassure taxpayers that a low risk rating is possible despite their size and complexity. If this were not so, there would be very little incentive for large businesses to moderate their tax planning behavior so that this is critical to the RRA method.

Processes and transparency, however, are still not sufficient to achieve a low risk rating. For example, the fact that a taxpayer is involved in “a high degree of complex issues” will indicate a major risk, and such a taxpayer will need very strong processes to negate that factor. Tax strategy continues to play an important part in that negation exercise. The wording with respect to the tax strategy criterion has changed slightly, but the thrust seems to be much the same as in the 2007 Guidance.

As one might expect, a taxpayer “heavily involved in tax planning with no commercial context” will have an increased risk. This does not seem contentious, but other indicators listed in the May 2009 Guidance are more so. “Frequent tax planning that requires disclosure to HMRC” or “innovative interpretation of tax law” are perhaps debatable factors. A company’s risk rating could be negatively affected by undertaking transactions that a court might conclude are perfectly legitimate. Even more debatable is the indicator that consists of regularly submitting requests for clearance or making voluntary disclosures which are not in accordance with HMRC guidance, given that there are statutory provisions which permit such applications for clearances, and that the HMRC Web site advertises a clearance service for businesses that is said to “provide certainty for businesses operating in the U.K., as a useful practical service at a level whereby speed of response from HMRC can be reasonably assured.”<sup>120</sup>

It seems odd that businesses can be penalized for relying on such a service. If the law is unclear so that clearances are needed, is this not arguably sometimes due to the failure of government to provide adequate guidance in the legislation? It also seems likely that large and complex businesses with innovative transactions will be more in need of clearances and guidance on new legislation than will smaller simpler businesses. Therefore, it remains unclear just how accessible a low risk rating is to some very large firms in certain sectors.

## Finance Act 2009

Another new development has emerged in the Finance Act 2009 which seems to be intended to impact on just such firms.<sup>121</sup> Under this provision, the senior accounting officer (as defined) of a qualifying company must take reasonable steps to ensure that the company and each of its subsidiaries (if any) establishes and maintains appropriate tax accounting arrangements.<sup>122</sup> This legislation has caused some concern to directors, who will be personally liable for any breach, and is being likened to section 404 of the *Sarbanes Oxley Act* by some. The fact that it is believed to be necessary suggests that the RRA regime alone is not having the desired effect on the modification of the tax planning behaviors of large corporates.

The HMRC guidance published on this provision links it very firmly into the risk review process, suggesting that some companies currently do not have robust enough systems and processes to ensure that the “right” amount of tax is being paid. Although the legislation refers to process, the guidance states that HMRC consider that the “judgment around tax sensitive decisions is part of “appropriate tax accounting arrangements” in so far as companies are expected to ensure that those making the decisions base them on reasonable interpretation of accurate information in full knowledge of tax law and having taken appropriate advice.” It is acknowledged that the fact that this judgment may differ from that made by HMRC does not mean that the tax accounting arrangements are inappropriate, but the objective is clearly to give decisions about entering into tax “avoidance” arrangements a higher profile and to deter companies from using them.

## Conclusions

The results of the surveys discussed here suggest that the RRA has resulted in a substantial improvement in the relationships between many large corporations and HMRC and that the development of the CRM role is particularly positive. From that point of view, it would appear to be a development worthy of further examination as a way of improving resource allocation and reducing compliance and administrative costs. It is less clear that this approach will result in corporate taxpayers becoming more accepting of widely drawn anti-avoidance legislation giving considerable discretion to the revenue authorities. This is not to say that such forms of legislation have no place in the armory of revenue authorities, but other methods of management may be needed to make them acceptable and workable.<sup>123</sup> These could include, for example, greater use of legislative clearances than

currently exist in the U.K. This idea, however, runs counter to the apparent distrust of a clearances system expressed in the May 2009 Guidance.

The underlying problem remains that the boundary between effective and acceptable tax planning and what is referred to in the OECD Study as aggressive tax planning is one which cannot be expressed in definitive terms.<sup>124</sup> Were this to be attempted, manipulation would be made very simple. Taxpayers are entitled to a measure of clarity, however, as a fundamental tenet of the rule of law. As the OECD Study states:

“Taxpayers have a reasonable expectation that revenue bodies will act consistently, objectively, and fairly. It would seriously undermine trust and confidence for a revenue body to seek to extract as much tax from the taxpayer as possible regardless of whether it is due under the law, using whatever commercial or other leverage can be brought to bear.”<sup>125</sup>

This view is reflected in the IRSAC report, which takes the view that:

“While the core “risk review” feature of the LBS Initiative should surely be a focal point for LMSB as well, the weight properly assignable to the “tax planning strategy” factor of that analysis should be driven by rules, principles, and attitudes reflecting the evolving state of U.S. law—including especially the application of nonstatutory doctrines (e.g., business purpose; substance v. form; step-transaction; sham transaction)—with respect to the fine line that often can exist between legitimate and abusive or otherwise overly aggressive tax planning strategies.”<sup>126</sup>

HMRC seem to be using the RRA to induce large corporate taxpayers to stay on the right side of the acceptable/unacceptable boundary as drawn by them, even if this might not be where a court would draw the boundary. This could be one reason why the RRA has not been as successful in altering the tax planning behaviors of certain taxpayers as it has in achieving other goals.

In sum, the RRA in the U.K. and other similar developments elsewhere are well worth monitoring and considering, but this approach cannot itself define what is due under the law nor should it be relied on to attempt to override that central question.

## Endnotes

- <sup>1</sup> Definition taken from *OECD Study into the Role of Tax Intermediaries* (OECD, 2008) ("OECD Study"), available at: [www.oecd.org/dataoecd/28/34/39882938.pdf](http://www.oecd.org/dataoecd/28/34/39882938.pdf) (accessed May 29, 2009) pp. 10–11, 87.
- <sup>2</sup> J. Freedman, G. Loomer and J. Vella, "Corporate Tax Risk and Tax Avoidance: New Approaches" [2009] *British Tax Review* 74, available at: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=1385042](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1385042) ("Main Survey Report"); J. Freedman, "Interpreting Tax Statutes: Tax Avoidance and the Intention of Parliament" (2007) 122 *Law Quarterly Review* 52; J. Freedman, "Defining Taxpayer Responsibility: In Support of a General Anti-Avoidance Principle" [2004] *British Tax Review* 332, available at [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=900043](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=900043).
- <sup>3</sup> OECD Study (en. 1).
- <sup>4</sup> The IRSAC Fact Sheet explains its function as follows: "[T]he IRSAC's primary purpose is to provide an organized public forum for senior IRS executives and representatives of the public to discuss relevant tax administration issues...., the IRSAC reviews existing tax policy and/or recommends policies with respect to emerging tax administration issues .... Membership is balanced to include representation from the taxpaying public, the tax professional community, small and large businesses, State tax administration, and the payroll community." See [www.irs.gov/taxpros/article/0,,id=167596,00.html](http://www.irs.gov/taxpros/article/0,,id=167596,00.html) (accessed May 29, 2009).
- <sup>5</sup> IRSAC, *Large and Mid-Size Business Subgroup Report* (2008), Attachment B, available at: [www.irs.gov/taxpros/article/0,,id=188491,00.html](http://www.irs.gov/taxpros/article/0,,id=188491,00.html) (accessed May 29, 2009) ("IRSAC Report 2008").
- <sup>6</sup> Ibid.
- <sup>7</sup> See text following en. 59.
- <sup>8</sup> Main Survey Report (en. 2).
- <sup>9</sup> OECD Study (en. 1).
- <sup>10</sup> Ibid. p. 53.
- <sup>11</sup> Ibid. p. 39.
- <sup>12</sup> Ibid. pp. 40–41.
- <sup>13</sup> Ibid. p. 45.
- <sup>14</sup> See V. Braithwaite (ed), *Taxing Democracy: Understanding Tax Avoidance and Evasion* (Ashgate Publishing, 2003); V. Braithwaite, "Responsive Regulation and Taxation" (2007) 29 *Law and Policy* 3; K. Murphy, "Moving towards a

more effective model of regulatory enforcement in the Australian Tax Office” [2004] *British Tax Review* 603.

<sup>15</sup> Murphy (en. 14) at p. 605.

<sup>16</sup> Ibid. pp. 612–615.

<sup>17</sup> Ibid. p. 605.

<sup>18</sup> V. Braithwaite 2007 (en. 14) p. 4.

<sup>19</sup> J. Braithwaite, “Large Business and the Compliance Model” in V. Braithwaite 2003 (en. 14) p. 177.

<sup>20</sup> Ibid. Reducing the gray area through law reform is of course easier said than done because of the difficulties involved in drawing the line between different types of tax avoidance, from tax planning that would be sanctioned by the courts as being within the purpose of the law on the one hand and artificial tax avoidance schemes that would ultimately fail to be effective if taken before the courts on the other. There might also be schemes that would be sanctioned by the courts but which the tax administration would think were contrary to the purposes of the legislation as they understand it. Some would think that such schemes are clearly in the white area of the egg, while others would place them in the gray area. Because of these difficulties, Braithwaite suggests a three-pronged approach to the problem. In addition to law reform, he argues for the use of what he calls democratic and international tools. By a democratic approach, he means a public debate which will influence the approach of the judges to interpretation and the corporate taxpayer and the tax administration to tax risk and corporate responsibility—what he calls “escalated responsive enforcement.” Much of what he argues for is what revenue authorities are indeed attempting to do with their enhanced relationship approaches.

<sup>21</sup> See [www.ato.gov.au/corporate/content.asp?doc=/content/74928.htm](http://www.ato.gov.au/corporate/content.asp?doc=/content/74928.htm).

<sup>22</sup> See [www.ato.gov.au/corporate/content.asp?doc=/content/00110436.htm](http://www.ato.gov.au/corporate/content.asp?doc=/content/00110436.htm).

<sup>23</sup> See [www.ato.gov.au/corporate/content.asp?doc=/content/00167346.htm](http://www.ato.gov.au/corporate/content.asp?doc=/content/00167346.htm).

<sup>24</sup> R. Happé, “Multinationals, Enforcement Covenants, and Fair Share” in J. Freedman (ed), *Beyond Boundaries: Developing Approaches to Tax Avoidance and Tax Risk Management* (Oxford University Centre for Business Taxation, 2008) (“Beyond Boundaries”) 157 at p. 165, first printed in (2007) 35 *Intertax* 537.

<sup>25</sup> Ibid. p. 166. See also Netherlands Tax and Customs Administration Coordination group on the treatment of very large businesses, *Tax Control Framework* (March 2008), available at: [http://ec.europa.eu/taxation\\_customs/](http://ec.europa.eu/taxation_customs/)

resources/documents/taxation/vat/vat\_conferences/tax\_control\_framework\_en.pdf (accessed May 31, 2009).

- <sup>26</sup> The OECD Study (en. 1) likens this to the U.S. CAP.
- <sup>27</sup> Happé (en. 24) p. 165 et seq.
- <sup>28</sup> OECD Study (en. 1) p. 81.
- <sup>29</sup> Happé (en. 24) p. 170.
- <sup>30</sup> Ibid. p. 171.
- <sup>31</sup> R. Simons, *Levers of Control: How managers use innovative control systems to drive strategic renewal* (Harvard Business School Press, 1995), cited in *Tax Control Framework* (en. 25).
- <sup>32</sup> IRSAC 2008 Report (en. 5).
- <sup>33</sup> For the HMRC publications setting out the details of this program, see *Review of Links with Large Business* (HMRC, November 2006) (“Varney Review”); *Making a Difference: Delivering the Review of Links with Large Business* (HMRC, March 2007) (“Varney Delivery Plan”); *HMRC Approach to Compliance Risk Management for Large Business* (HMRC, March 2007) (“Risk Management Report”). A summary and update are available in HMRC, *The framework for a better relationship* (Budget 2008) (“2008 Framework”), available at: [www.hmrc.gov.uk/budget2008/supplementary.htm](http://www.hmrc.gov.uk/budget2008/supplementary.htm) (accessed May 31, 2009).
- <sup>34</sup> *Varney Review* (en. 33) p. 16.
- <sup>35</sup> By basing its enforcement program on risk assessment, HMRC are moving into line with the government’s wider approach to better regulation, as recommended by the Hampton Review: *Risk Management Report* (en. 33) para 1.6. See also P. Hampton, *Reducing Administrative Burdens: Effective Inspection and Enforcement* (HM Treasury, March 2005).
- <sup>36</sup> *Risk Management Report* (en. 33) para 3.2.
- <sup>37</sup> HMRC, *Tax compliance risk management: Guidance for LBS customers and staff* (December 2007) (“December 2007 Guidance”), now removed from the HMRC Web Site, copy available from the authors.
- <sup>38</sup> HMRC, *Tax Compliance Risk Management Process* (May 2009) (“May 2009 Guidance”), available at: [www.hmrc.gov.uk/manuals/tcrmanual/index.htm](http://www.hmrc.gov.uk/manuals/tcrmanual/index.htm) (accessed May 25, 2009).
- <sup>39</sup> The LBS deals with the affairs of around 700 companies, based on factors including turnover, assets threshold, and sector. There is some flexibility as to

inclusion depending on a variety of circumstances. (Source: interview with LBS senior official).

- <sup>40</sup> HMRC, *Update on Review of Links with Large Business: research summary* (January 2008), available at: [www.hmrc.gov.uk/large-business/lb-summary.pdf](http://www.hmrc.gov.uk/large-business/lb-summary.pdf) (accessed May 25, 2009).
- <sup>41</sup> HMRC Research Report 58, *Research to support the implementation of proposals in the Review of Links with Large Business* (December 2007) ("HMRC Research Report 58"), available at: [www.hmrc.gov.uk/research/report58.pdf](http://www.hmrc.gov.uk/research/report58.pdf) (accessed May 25, 2009).
- <sup>42</sup> For a summary, see J. Freedman; G. Loomer; and J. Vella, "Moving Beyond Avoidance? Tax Risk and the Relationship between Large Business and HMRC" in *Beyond Boundaries* (en. 24) 81. For the full report, see: [www.sbs.ox.ac.uk/Tax/publications/reports/Reports.htm](http://www.sbs.ox.ac.uk/Tax/publications/reports/Reports.htm) ("Pilot Survey Full Report").
- <sup>43</sup> The scenarios are described fully in the Main Survey Report (en. 2) Appendix II.
- <sup>44</sup> M.Q. Patton, *Qualitative Research and Evaluation Methods* (3rd edition, Sage Publications, 2002) 46. There are differing views about the importance of sample selection when a qualitative methodology is used: M. McKerchar, "Philosophical Paradigms, Inquiry Strategies, and Knowledge Claims: Applying the Principles of Research Design and Conduct to Taxation" *eJournal of Tax Research* [2008] 5. Whatever the sample used, it is important not to overgeneralize from the results of a qualitative survey, and the authors of this paper have paid respect to this principle. Nevertheless, the authors take the view that the more representative the sample, the greater its value, and that careful sample selection was therefore important.
- <sup>45</sup> One of the 9 companies that participated in the Pilot Survey was unable to participate in the Main Survey.
- <sup>46</sup> The 21 companies from the FTSE 350 were selected by means of the following process. The authors randomly selected 118 companies from the FTSE 350 Index as of March 6, 2008. This was done by selecting every third company on the alphabetical list. A small number of the companies that were selected following this process formed part of the sample from the Pilot Survey; in such cases, that company was deselected, and the next company on the list was selected. The authors also randomly selected 20 companies from the FTSE Small Cap Index as of March 6, 2008, by selecting every twentieth company on the alphabetical list, but no company contacted from the FTSE Small Cap Index was willing to participate in the research.
- <sup>47</sup> The then-current HMRC documentation indicated that the LBS was composed of "approximately" 1000 companies, so that the authors proceeded on the

assumption that most of the companies in the FTSE 350 and perhaps even the FTSE Small Cap Index would be within the LBS. That assumption was later proven to be incorrect.

- <sup>48</sup> See en. 67 and en. 68 below.
- <sup>49</sup> HMRC Research Report 58 (en. 41) p. 8.
- <sup>50</sup> Even some FTSE 250 companies that were contacted indicated that they do not have internal tax departments.
- <sup>51</sup> There is a small literature that analyzes the views of tax accountants with respect to ethics, risk management, and tax avoidance, including: K. Kadous and A.M. Magro, "The Effects of Exposure To Practice Risk on Tax Professionals' Judgements and Recommendations" (2001) 18 *Contemporary Accounting Research* 451; E.M. Doyle; J.F. Hughes; and K.W. Glaister, "Linking Ethics and Risk Management in Taxation: Evidence from an Exploratory Study in Ireland and the U.K." (2009) 86 *Journal of Business Ethics* 177.
- <sup>52</sup> D. Silverman, *Interpreting Qualitative Data: Methods for Analysing Talk, Text, and Interaction* (2nd edn, Sage Publications, 2001) p. 87.
- <sup>53</sup> The authors do not dispute that focus group interviewing can be entirely appropriate in other circumstances. See D.L. Morgan, "Focus Group Interviewing" in J.F. Gubrium and J.A. Holstein (eds), *Handbook of Interview Research: Context and Method* (Sage Publications, 2001) 141.
- <sup>54</sup> J. Miller and B. Glassner, "The 'Inside' and the 'Outside': Finding Realities in Interviews" in D. Silverman (ed), *Qualitative Research: Theory, Method, and Practice* (2nd edn, Sage Publications, 2004) 125.
- <sup>55</sup> On coding procedures see, for example, A. Strauss and J. Corbin, *Basics of Qualitative Research: Techniques and Procedures for Developing Grounded Theory* (2nd edn, Sage Publications, 1998) pt. II.
- <sup>56</sup> K. Charmaz, "Qualitative Interviewing and Grounded Theory Analysis" in Gubrium and Holstein (en. 53) 675; J.A. Holstein and J.F. Gubrium, "The Active Interview" in Silverman 2004 (en. 54) 140.
- <sup>57</sup> *Varney Review* (en. 33) para 1.7. See also para 1.6 and the Chairman's forward at p. 1.
- <sup>58</sup> *Risk Management Report* (en. 33) para 3.2.
- <sup>59</sup> *Varney Review* (en. 33) p. 16.



<sup>60</sup> 2008 Framework (en. 33) p. 4. See also HMRC, *Making a difference: Certainty and clarity* (October 2007) p. 11; *Risk Management Report* (en. 33) para 1.4; *Varney Delivery Plan* (en. 33) para 3.3 and p. 16; 2008 Framework (en. 33) p. 10; December 2007 Guidance (en. 37) pp. 8, 16, and 18.

<sup>61</sup> Description taken from HMRC Web Site, [www.hmrc.gov.uk/aiu/summary-disclosure-rules.htm](http://www.hmrc.gov.uk/aiu/summary-disclosure-rules.htm) (accessed May 31, 2009).

<sup>62</sup> Pilot Survey Full Report (en. 42) p. 9.

<sup>63</sup> In the 2008 Budget, HMRC reported that 97 percent of LBS customers had been reviewed using the new risk review template: 2008 Framework (en. 33) p. 10.

<sup>64</sup> See also Pilot Survey Full Report (en. 42) pp. 17–18.

<sup>65</sup> The high ranking official from the LBS explained that there are only two overall ratings a company can obtain during the above-mentioned interview with the authors (en.39). See also text following endnote 47.

<sup>66</sup> May 2009 Guidance (en. 38). See in particular TCRM2100, 2200, and 2400.

<sup>67</sup> The detailed responses were as follows:

4 companies had not had a risk rating assessment yet—all FTSE 250;

16 gave a single overall risk rating: 7 of these said they were low risk (4 FTSE 100, 2 FTSE 250, 1 unlisted); 2 said they were moderate risk (FTSE 250); 7 said they were high risk (FTSE 100);

10 did not give an overall risk rating: 2 of these said they were on the lower end of the scale (1 FTSE 100, 1 FTSE 250); 8 said they were low on some criteria and moderate or high on others. Of these 8, 3 were clearly on the lower end of the spectrum and could possibly be overall low risk (2 FTSE 100, 1 FTSE 250), while the remaining 5 seemed to the authors to be situated somewhere on the mid-high end of the scale, possible closer to the high end (FTSE 100).

<sup>68</sup> 2008 Framework (en. 33) p. 10. By June 2008, the actual number of businesses managed by the LBS that had a low risk rating was 238 (out of around 700 possible businesses): Hansard, House of Lords, Vol. 703, col. WA70 (July 7, 2008), available at: [www.publications.parliament.uk/pa/ld200708/ldhansrd/text/80707w0003.htm](http://www.publications.parliament.uk/pa/ld200708/ldhansrd/text/80707w0003.htm) (accessed May 26, 2009). This equates to roughly 34 percent. More recently, HMRC has stated that it has a low risk relationship with “about 30 percent” of LBS businesses: May 2009 Guidance (en. 37) TCRM9000 (Annex G).

- <sup>69</sup> *Risk Management Report* (en. 33) para 4.4 and Annex A. See now May 2009 Guidance (en. 37) TCRM2100 and TCRM4000 (Annex B).
- <sup>70</sup> December 2007 Guidance (en. 37) pp. 6–7 and Annex C. See now May 2009 Guidance (en. 38) TCRM4000 (Annex B).
- <sup>71</sup> “Contribution” in this context is the tax paid by the company in comparison with the amount HMRC might expect from the level of its economic activity and in comparison to its competitors. Obviously, this comparison involves subjective judgments and could be contentious.
- <sup>72</sup> Pilot Survey Full Report (en. 42) pp. 9–11.
- <sup>73</sup> December 2007 Guidance (en. 37) p. 7. See now May 2009 Guidance (en. 38) TCRM2110 and TCRM4000 (Annex B).
- <sup>74</sup> 12 out of the 22 interviewees who answered the question believed that there had been a change.
- <sup>75</sup> 2 out of the 22 interviewees who answered the question.
- <sup>76</sup> December 2007 Guidance (en. 37) Annex C. See now May 2009 Guidance (en. 38) TCRM4000 (Annex B) and TCRM9000 (Annex G).
- <sup>77</sup> “There were generally pessimistic views about whether the risk review would incentivize tax behaviour changes, other than by highlighting potential areas for improvement. This was explained as resulting both from conscious decisions about attitude toward tax risk, and the inherent risk status of businesses due to their size, structure and nature.” HMRC Research Report 58 (en. 41) p. 27.
- <sup>78</sup> December 2007 Guidance (en. 37).
- <sup>79</sup> See HMRC, *Tax in the Boardroom*, available at: [www.hmrc.gov.uk/lbo/tax-in-the-boardroom.htm](http://www.hmrc.gov.uk/lbo/tax-in-the-boardroom.htm) (accessed May 26, 2009).
- <sup>80</sup> *Risk Management Report* (en. 33) para 3.2. Schedule A includes these questions: “What are the reporting structures—what reports are required and made to the Board by the customer’s tax team? What are the relevant accountabilities?”
- <sup>81</sup> 28 answered this question: 10 have a tax policy; 11 have a tax strategy; 2 said that tax falls within the ambit of a broader risk policy.
- <sup>82</sup> Tax planning falls within the ambit of a more general code of conduct/risk policy for this one company. Note that one of the companies said that its policy was unwritten and informal.
- <sup>83</sup> The decision making and review processes were not discussed with the remaining company, so that it could, in fact, have had such processes in place.

- <sup>84</sup> See also HMRC Research Report 58 (en. 41) p. 26.
- <sup>85</sup> *Risk Management Report* (en. 33) para 1.10. See now May 2009 Guidance (en. 38) TCRM2210 and TCRM2420.
- <sup>86</sup> 13 of the 25 who answered the question.
- <sup>87</sup> 10 of the 25 who answered the question.
- <sup>88</sup> D.F. Williams, KPMG's Tax Business School, *Developing the Concept of Tax Governance* (2007); Henderson Global Investors, *Tax, Risk, and Corporate Governance* (February 2005); Henderson Global Investors, *Responsible Tax* (October 2005).
- <sup>89</sup> SustainAbility, *Taxing Issues—Responsible Business and Tax* (2006). For academic discussions, see R. Avi-Yonah, "Corporate Social Responsibility and Strategic Tax Behaviour" in W. Schön (ed), *Tax and Corporate Governance* (Springer, 2008); R. Avi-Yonah, "Aggressive Tax Behaviour and Corporate Social Responsibility" in *Beyond Boundaries* (en. 24); R. Fraser, "'Aggressive Tax Behaviour' and Corporate Social Responsibility: A Response" in *Beyond Boundaries* (en. 24); D. McBarnet, "Corporate Social Responsibility Beyond Law, Through Law, For Law: The New Corporate Accountability" in D. McBarnet; A. Voiculescu; and T. Campbell (eds), *The New Corporate Accountability* (CUP, 2007); J. Freedman, "The Tax Avoidance Culture: Who is Responsible? Governmental Influences and Corporate Social Responsibility" in J. Holder and C. O'Cinneide (eds), *59 Current Legal Problems* (2006) 359. Also see the Pilot Survey Full Report (en. 42) p. 38.
- <sup>90</sup> Pilot Survey Full Report (en. 42) pp. 38–41.
- <sup>91</sup> European Commission Communication COM (2006) 01136.
- <sup>92</sup> This can be described as the Enlightened Shareholder Value approach. For a discussion of this approach, see DTI, *The Strategic Framework* (London, February 1999, URN 99/654).
- <sup>93</sup> Of the 10 interviewees who discussed this: 6 said that they were concerned about the reputational effect of negative press coverage regarding tax planning, but then suggested that the effect was minimal or unclear; 1 said there were possible reputational risks in tax planning, but these were often exaggerated; 1 thought this would be more of a concern for companies dealing directly with members of the public; the remaining 2 felt that a company's tax affairs would not affect its reputation.
- <sup>94</sup> The first article was published in February 2008. In 2009, *The Guardian* conducted a further campaign on tax avoidance naming several further companies. See [www.guardian.co.uk/business/series/tax-gap](http://www.guardian.co.uk/business/series/tax-gap).

- <sup>95</sup> A. Rusbridger, “A Chill on ‘*The Guardian*’” in *The New York Review of Books* (January 15, 2009).
- <sup>96</sup> For commentary on research in the U.S., see M. Desai, “Corporate Governance and Taxation: The Implications for Financial Reporting” and M. Hanlon, “Analyzing the Impact of Tax Avoidance,” both in *Beyond Boundaries* (en. 24), and M. Hanlon and J. Slemrod, “What Does Tax Aggressiveness Signal? Evidence from Stock Price Reactions to News about Tax Shelter Involvement” (2009) 93 *Journal of Public Economics* 126, but the U.S. research is not conclusive.
- <sup>97</sup> 13 companies noted that the relationship has improved recently. 7 enjoy a good relationship. Interviewees were not asked directly whether their relationship with HMRC has improved or if they enjoy a good relationship with HMRC, so that the actual figures could have been higher. The authors note that the research carried out on behalf of HMRC found that “[t]here were contrasting views among participants about whether an open and transparent relationship with HMRC was a realistic goal”: HMRC Research Report 58 (en. 41) p. 20.
- <sup>98</sup> See proposal 7 of the *Varney Delivery Plan* (en. 33).
- <sup>99</sup> The last two noted improvements also relate to another of the four desired outcomes of the *Varney Review*, namely speedy resolution of issues: *Varney Review* (en. 33) pp. 18–19. The delivery of this desired outcome is detailed in 2008 Framework (en. 33).
- <sup>100</sup> December 2007 Guidance (en. 37) Part 5 “Handling tax issues for all customers.” See also proposal 7 of the *Varney Delivery Plan* (en. 33).
- <sup>101</sup> HMRC, *Simplifying anti-avoidance legislation* (12 March 2008) (“Simplification Progress Report”) para A.10, available at: [www.hmrc.gov.uk/budget2008/supplementary.htm](http://www.hmrc.gov.uk/budget2008/supplementary.htm) (accessed May 26, 2009).
- <sup>102</sup> D.F. Williams, “Avoidance through the Creation and Use of Capital Losses by Companies” [2006] *British Tax Review* 23.
- <sup>103</sup> 17 of 30 interviewees.
- <sup>104</sup> 10 of 30 interviewees.
- <sup>105</sup> About half of these respondents added that, while they were concerned about the complexity and uncertainty of anti-avoidance provisions, the uncertainty surrounding the proposals for the taxation of foreign profits was more significant to them. For details of these proposals as they stood at the time of the survey, see HMT & HMRC, *Taxation of the foreign profits of companies: a discussion document* (June 2007). The government later published modified proposals which addressed the objections of business to some extent: HMT

& HMRC, *Taxation of the Foreign Profits of Companies: Draft Provisions* (December 2008). Draft legislation has been introduced recently in Finance Bill 2009. All of this material is available at: [www.hm-treasury.gov.uk/consult\\_foreign\\_profits.htm](http://www.hm-treasury.gov.uk/consult_foreign_profits.htm).

- <sup>106</sup> Finance Act 1996 sections 91A through 91G, as amended; Taxation of Chargeable Gains Act 1992 section 16A. For readers interested in the wording of the provisions, the relevant parts are set out in the Main Survey Report (en. 2) at p. 95.
- <sup>107</sup> The Duke of Westminster principle is based on a leading tax case which established the right to minimize taxes and that economic substance could not override form: *Inland Revenue Commissioners v Duke of Westminster* [1936] AC 1. This case has been qualified by later case law developments in the U.K., but never overruled. For the current position regarding judicial anti-avoidance rules in the U.K., see Freedman, (2007) (en. 2).
- <sup>108</sup> A range of respondents (8) highlighted the CFC “motive test” contained in ICTA 1988 section 748(3), arguing that HMRC apply this provision overzealously in order to disregard the effectiveness of transactions involving foreign subsidiaries.
- <sup>109</sup> J.F. Avery Jones, “Tax Law: Rules or Principles?” [1996] *British Tax Review* 580; B. Drummond, “A Purposive Approach to the Drafting of Tax Legislation” [2006] *British Tax Review* 669; R. Krever, “Plain English Drafting, Purposive Drafting, Principles-Based Drafting: Does Any of it Matter?” in *Beyond Boundaries* (en. 24) 189.
- <sup>110</sup> For more information on the Australian efforts see G. Pinder and B. Berkeley, *Coherent Principles Approach* (Australian Treasury, 2005).
- <sup>111</sup> HMT and HMRC, *Principles-based approach to financial products avoidance: a consultation document* (December 2007) (“PBL Consultation Document”), available at: [www.hmrc.gov.uk/legislation/disguised-interest-intro.htm](http://www.hmrc.gov.uk/legislation/disguised-interest-intro.htm) (accessed January 9, 2009). The proposed legislation as it stood at the time of the interviews is discussed here. Revised clauses, taking on board some of the criticisms mentioned in the interviews, were published in a newer consultation document, HMT and HMRC, *Principles based approach to financial products avoidance* (December 2008), with a view to the introduction of legislation in the Finance Bill 2009.
- <sup>112</sup> PBL Consultation Document (en. 111) para 1.8. See also Simplification Progress Report (en. 101) paras A.15–A.18.
- <sup>113</sup> 20 interviewees.

- <sup>114</sup> It should be reiterated that these interviews were conducted in April and May 2008. This was prior to HMRC's announcement that they would revise the draft legislation in accordance with comments received in early 2008 and would conduct further consultations with stakeholders via invitational workshops in August 2008. Further workshops were conducted in early 2009. All of this indicates that the HMRC consultation was a genuine exercise.
- <sup>115</sup> The scenarios are described fully in the Main Survey Report (en. 2) Appendix II.
- <sup>116</sup> Avery Jones (en. 109); R. Vann, "Improving Tax Law Improvement: An International Perspective" [1995] *Australian Tax Forum* 193; D. McBarnet and C. Whelan, "The Elusive Spirit of the Law: Formalism and the Struggle for Legal Control" (1991) 54 *Modern Law Review* 848; Freedman 2004 (en. 2).
- <sup>117</sup> Lord Hoffmann, "Tax Avoidance" [2005] *British Tax Review* 197.
- <sup>118</sup> May 2009 Guidance (en. 38).
- <sup>119</sup> December 2007 Guidance (en. 37).
- <sup>120</sup> See [www.hmrc.gov.uk/cap/index.htm](http://www.hmrc.gov.uk/cap/index.htm).
- <sup>121</sup> Finance Act 2009, section 93 and Schedule 46 and HMRC Guidance Note 17 August 2009.
- <sup>122</sup> The definition of a 'qualifying company' includes only the largest companies, generally with a turnover of more than £200 million and/or a balance sheet total of more than £2 billion, Schedule 46 *ibid*.
- <sup>123</sup> One of the current authors has argued strongly for a statutory general anti-avoidance provision in the U.K., but with appropriate safeguards and clearances: Freedman, (2007) (en. 2).
- <sup>124</sup> OECD Study (en. 1).
- <sup>125</sup> OECD Study (en. 1) at Annex 7.2.
- <sup>126</sup> IRSAC 2008 Report (en. 5).

**3**



**Measuring and Facilitating Low-Income  
Tax Benefits**

**Plueger**

**Ackerman ♦ Holtzblats ♦ Masken**

**Robles**

# Earned Income Tax Credit Participation Rate for Tax Year 2005

*Dean Plueger, Internal Revenue Service*

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The Earned Income Tax Credit (EITC) was created in 1975 to offset certain taxes for working individuals with low to moderate income with children. The credit has been refined and expanded through the years, and, in TY2005, the maximum credit was \$4,400. The credit is claimed by filing a tax return with the IRS. It is a refundable credit, meaning taxpayers are eligible to obtain a refund for any portion of the credit that is not offset by a tax liability.

There has long been interest in measuring the level of participation in the EITC program by both IRS and other researchers.<sup>1</sup> As the credit has grown in relative value to eligible participants, and its potential to lift taxpayers out of poverty has been recognized, advocates for persons/families with low to moderate income have increased their interest in measuring EITC participation.

In 1999, the IRS formed the Stakeholder Partnerships, Education, and Communication (SPEC) function in IRS, whose “business model incorporates an indirect approach to community outreach, tax return preparation assistance, financial literacy, and asset building. Their model emphasizes collaboration with organizations that have shared service objectives and the ability to reach targeted special populations. The majority of the community-based partners and coalitions serve the low-income, limited English proficient (LEP), disabled, elderly, and Native American populations.”<sup>2</sup>

SPEC promotes EITC participation by using aggregate filing data the IRS produces annually on EITC claimants to inform community-based organizations of recipients’ tax return characteristics. Advocate organizations also need data on the potentially eligible nonclaimant population to help focus their outreach—which is not present in claimant data.

Most attempts to measure participation have been focused at the national level. Karl Scholz published an article in 1994 titled “The Earned

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<sup>1</sup> Participation can be divided into taxpayer participation and dollar participation. The distinction is necessary because taxpayers who are eligible for higher credit amounts are more likely to participate than taxpayers who are eligible for a minimal amount of EITC. Therefore, the dollar participation rate will generally exceed the taxpayer participation rate.

<sup>2</sup> United States Department of the Treasury, Internal Revenue Service (2007), “The 2007 Taxpayer Assistance Blueprint Phase 2,” p. 87.



Income Tax Credit: Participation, Compliance, and Antipoverty Effectiveness” describing his effort to estimate the EITC participation rate for TY 1990.<sup>3</sup> Scholz concludes that between 80 percent and 86 percent of eligible households participated in the program, and that 1.3 million to 2.0 million eligible taxpayers did not claim the credit. The nonparticipating households were estimated using data taken from the Survey of Income and Program Participation (SIPP) for survey participants who appeared EITC-eligible and did not file a return with the IRS. At the time of Scholz’s study, the IRS calculated and refunded EITC benefits to those who did not claim the credit when they filed a return and appeared eligible (instead of sending a notice). The IRS has since ceased this practice. The current study improves on that method by using a fact of claimant indicator supplied by the IRS. Additionally, in TY 1990, there was no EITC benefit for childless workers. In TY 2005, childless workers could receive a benefit up to \$399.

In 2001, the Government Accountability Office (GAO) estimated taxpayer EITC participation to be 75 percent and dollar participation to be 89 percent for TY 1999 by using a multiple data source method that did not involve linked records.<sup>4</sup>

The previous research did not provide estimates below the national level. Today, there is a clear demand for credible measures of taxpayer participation at lower geographic levels.

As there have been no regional estimates of participation, some users of EITC data have computed their own estimates of the potential unclaimed EITC in their communities. Improper and inconsistently applied assumptions and computational methods resulted in widely disparate estimates across the country. To address the situation, the IRS formally estimated unclaimed and overclaimed EITC at the Zip Code level by assuming that participation and compliance were uniform across the country and applying the TY 1999 GAO estimates using an appropriate computational method. The IRS distributed these estimates in the fall of 2003. Given the assumptions behind the numbers, W&I Research believes the computation likely produced very inaccurate results. Estimates using this methodology are no longer produced. The IRS committed to developing a better method of deriving more geographic-specific estimates.

In 2004, two similar, but different, approaches were pursued to estimate participation below the national level. The first approach, termed the

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<sup>3</sup> Scholz, John Karl (1994), “The Earned Income Tax Credit: Participation, Compliance, and Antipoverty Effectiveness,” *National Tax Journal*. 47: 1, pp. 63–87.

<sup>4</sup> U.S. General Accountability Office, Earned Income Tax Credit Participation, GAO–02–290R, December 14, 2001. See <http://www.gao.gov/new.items/d02290r.pdf>.

Regression method, combined data from the IRS Individual Return Transaction File (IRTF) and EITC Compliance Studies, and Census Bureau Current Population Survey Annual Social and Economic Supplement (CPS ASEC) to build a regression equation that could estimate State-level participation for years in which no compliance data were available.<sup>5</sup> The second approach, termed the Exact Match method, uses the IRS IRTF and CPS ASEC and links the data from the two data sources. The remainder of this report details the methodology and results of the Exact Match method. At present, neither approach has produced reliable estimates of local EITC participation. National participation estimates have been produced using the Exact Match methodology, which could be used with the American Community Survey to produce similar results but with greater geographic specificity. Future work will determine whether the American Community Survey (ACS) is a feasible replacement for the CPS ASEC. If feasible, the ACS would allow for local statistics on potentially eligible, nonparticipants.

## **Participation Rates**

### **Desirable Features of a Participation Estimate**

Three factors affect the efficacy of computed participation rates.

**Currency**—It is desirable to have estimates that reflect present participation rates. Changes in eligibility criteria, the impact of current and new enforcement and outreach activities, and economic conditions likely influence taxpayer behaviors and could produce changes in taxpayer participation over time.

**Resolution**—Resolution refers to the precision or fineness of geographic detail the data source provides and is directly related to the sampling frame of the data sources. The higher the resolution, the smaller the geographic area for which estimates may be made. While most studies have measured EITC participation only at the national level, getting to local estimates is extremely important for advocacy groups and policymakers to target outreach and education efforts.

**Completeness**—How ‘tight’ (accurate) is the methodology that produces the participation estimate? Do the data sources provide sufficient information needed to determine/estimate EITC eligibility or EITC fact-of-

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<sup>5</sup> The regression method was an internal analysis completed by W&I Research in 2004 that was not externally published.

claim?<sup>6</sup> Completeness includes both completeness of the data collection and the accuracy of the responses provided by survey participants.

The Exact Match methodology provides relatively current estimates. While this study examined TY 2005, in the future, results could be produced within 1 year of the close of a tax year.

The dataset used for this project (CPS ASEC) does not provide extensive resolution. At present, taxpayer participation estimates have not been produced below the Census Bureau divisions.<sup>7</sup> The availability of variables in the CPS ASEC to completely model EITC eligibility is described in a later section of the paper.

### **Data Needed To Estimate Participation**

Two primary data elements are needed to estimate participation:

- The number of taxpayers who were legally paid EITC (numerator).
- The total number of taxpayers potentially eligible to receive EITC (denominator), including nonfilers.

Once these two data elements are known, the participation rate can be computed by dividing the numerator by the denominator. The denominator is estimated by applying the EITC rules to data in each survey record. The numerator can be estimated from IRS compliance studies (which produce estimates of the number of legal claimants) or derived from special projects like this Exact Match project with the Census Bureau.

### **Number of Taxpayers Potentially Eligible To Receive EITC**

The only source of data that enables a researcher to estimate the number of taxpayers eligible for EITC is the Census Bureau. No other organization collects data on U.S. residents at the level of detail and geography needed to estimate the number eligible for the entire U.S. The Census Bureau has three products capable of estimating the number of taxpayers eligible for EITC. To determine EITC eligibility from any of the following datasets, a “tax filing unit” is constructed by combining the income of married persons and determining the number of children for each tax unit. Once all relevant information is assembled into one record, the EITC eligibility rules

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<sup>6</sup> EITC fact-of-claim is defined as a taxpayer/respondent who has been proven to have been paid EITC.

<sup>7</sup> A division is a subregion of a Census Bureau Region. For example, the Northeast Region is composed of two divisions (New England and Mid-Atlantic). See [http://www.census.gov/geo/www/us\\_regdiv.pdf](http://www.census.gov/geo/www/us_regdiv.pdf).

are applied to the record, and those records that meet the requirements are selected and weighted to provide national estimates of the number of respondents eligible to receive EITC (denominator).

Of the following four Census Bureau datasets available to estimate the number of taxpayers eligible for EITC, CPS ASEC currently provides the best information from which to estimate eligibility. It is released annually. The sampling frame allows for estimates to the four U.S. regions. CPS ASEC contains rich information relative to family structure and income to allow a generally accurate determination of EITC eligibility.

#### **American Community Survey**

Primary advantage—Large sample size with over 3 million U.S. addresses surveyed annually.

Primary disadvantage—Income and family relationship of respondents are not as detailed as the CPS ASEC dataset.

#### **Survey of Income and Program Participation (SIPP)**

Primary advantage—Panel survey that collects detailed income and tax data, which allow for eligibility and recipient status to be determined from the same data source.

Primary disadvantage—Lag in the date from when the survey data are collected and when they are released. Data are not provided annually.

#### **CPS Annual Social and Economic Supplement (CPS ASEC)**

Primary advantage—Provides a rich set of information relative to family structure and income, and is conducted annually.

Primary disadvantage—Sample size is not as large as American Community Survey, which restricts the ability to produce State-level estimates.

Future studies will explore using the American Community Survey as the sample size is 10 times larger than the CPS ASEC and allows for more geographic resolution.

### **Number of Taxpayers who are Legally Paid EITC**

The number of taxpayers legally paid EITC may be estimated using three methods. All three methods must determine both eligibility and EITC fact-of-claim.<sup>8</sup>

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<sup>8</sup> It should be noted that none of the methods will always record the taxpayer's true income and therefore will likely overstate the estimate of taxpayers legally paid EITC.

**Survey of Income and Program Participation (SIPP)**—A panel in this Census Bureau survey directly asks whether the respondent claimed EITC on a tax return. If the researcher determines the respondent is EITC-eligible from data gathered from the survey and if the respondent reports claiming EITC, the respondent is classified as a legal claimant. The Census Bureau recently redesigned this survey, and it will continue to collect information related to tax filing, including EITC status. However, there is substantial concern that, when the new SIPP is fielded, respondents will not answer the EITC question accurately because they may not be aware of their EITC status.

**Match Census Bureau Data to IRS Administrative Records (Exact Match)**—A Census Bureau dataset (Decennial Long Form, American Community Survey, SIPP, or CPS ASEC) is matched to IRS administrative records that contain EITC fact of filing. The survey data are modeled to determine who is potentially EITC-eligible, and the IRS data are used to determine who was actually paid EITC. Once the match is completed, the resulting set identifies eligible recipients. The number of eligible recipients is compared to the number modeled eligible to determine the participation rate.

**IRS EITC Compliance Studies**—IRS commissioned and publicly released EITC compliance studies in TY 1997, TY 1999, and TY 2001 (National Research Program).<sup>9</sup> The compliance studies were stratified samples that did not include late EITC claimants; analysts weight the sample to arrive at the number of nonlate filing taxpayers who made a legal claim. Alternatively, an analyst may compute the percentage of taxpayers who made a legal claim and multiply that percentage against the total number of claimants, including late filers, to arrive at counts of taxpayers with a legal claim.<sup>10</sup>

Prior to TY 2005, none of the three methods that directly estimate the number of eligible recipients was conducted on an annual basis. SIPP was a panel study with study life cycles of several years and had a significant lag time to data release. The Exact Match was viable only in years in which the IRS provides the Census Bureau with administrative records that contain

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<sup>9</sup> The IRS meets its need for current compliance information through the National Research Program (NRP). In 2000, IRS established the NRP office as part of its efforts to develop and monitor strategic measures of taxpayer compliance. NRP provides a statistically valid representation of the compliance characteristics of taxpayers. The IRS is currently conducting another NRP study of individual return reporting compliance for TY 2006 to TY 2008. Preliminary, TY 2006 results are expected by 2010.

<sup>10</sup> This method assumes late claimants have the same compliance rate as timely claims.

EITC fact-of-filing.<sup>11</sup> An EITC compliance study will be a component of the TY 2006 to TY 2008 NRP studies.

An indirect method of estimating the number of eligibles was developed by W&I Research, in conjunction with National Headquarters Research, and is known as the Regression Method. This method incorporates data from CPS ASEC, EITC Compliance Studies, and IRS administrative records to develop regression models that estimate EITC participation. The models are applied to years in which no EITC Compliance Studies were commissioned.

## **Methodology**

### **Computing Population Eligible for EITC from the CPS ASEC**

Both methods (Exact Match and Regression) used by the IRS to determine EITC participation rates rely on CPS ASEC to provide estimates of the number of taxpayers eligible to receive EITC.

#### **Current Population Survey Annual Social and Economic Supplement (CPS ASEC)**

The Current Population Survey is an annual survey of approximately 78,000 households nationwide. The Annual Social and Economic Supplement, formerly known as the March Supplement to the CPS, is an expanded sample that collects detailed income information. The population represented is the civilian noninstitutional population living in the United States. Members of the Armed Forces living off post or with their families on post are included if at least one civilian adult lives in the household. Most of the data from the CPS ASEC are collected in March, with some data collected in February and April.

Because the dataset has variables relating to family composition, it is relatively straightforward to construct tax-filing entities from this file. For example, a family of four, composed of a married couple with two children ages 10 and 12, can easily be combined into one tax filing unit consisting of the combined incomes of the two adults with two dependents (or qualifying children).

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<sup>11</sup> This match may be conducted annually, contingent on the IRS, Treasury, and Census ability to fund the project and continuing agreement among the three entities to conduct such studies.

### IRS Modeling of the CPS ASEC Public Use File

The Wage and Investment (W&I) Research Division of IRS models EITC eligibility using the CPS ASEC public use file. Person records are compiled into filing units, Adjusted Gross Income (AGI) and EITC earned income are computed, and EITC qualifying children are tallied. The person and household identifiers along with the modeled filing information were transmitted to the Census Bureau and merged onto the internal file. The Census Bureau also models filing units as part of a tax calculator. The units and qualifying children modeled by the IRS differ slightly from the Census Bureau modeled units. In certain situations, the IRS model maximizes EITC eligibility, per IRS rules, whereas the Census Bureau model minimizes overall tax liabilities. For purposes of this study, the W&I Research set of eligible tax units was used. A summary of filing units transmitted to the Census Bureau is in Table 1.

**Table 1. IRS W&I Modeled Filing Units (Weighted CPS ASEC 2006), Millions of Filers**

	0 QC [1]	1 QC	2+ QC	Total
Single	3.94	0.00	0.00	3.94
Head of Household	0.67	1.75	3.89	6.31
Married Filing Jointly	0.00	4.47	4.33	8.80
Total	4.61	6.22	8.22	19.05

[1] QC=Qualifying Children.

### Assumptions and Limitations

While the CPS ASEC provides a vast majority of the data needed to determine eligibility (or ineligibility), it does not provide information on all factors related to EITC eligibility. Following are the data limitations and eligibility assumptions that were used by W&I Research and Census Bureau analysts when implementing the algorithm to identify individuals/families eligible for EITC.

### Qualifying Children

Under TY 2005 tax law, a qualifying child is any child who meets all of the following conditions:

- **Relationship Test**—Must be a son, daughter, adopted child, stepchild, eligible foster child, or a descendent of any of them (for example, a grandchild); or a brother, sister, half brother, half

sister, stepbrother, stepsister, or a descendent of any of them (for example, a niece or nephew).

- **Age Test**—Under age 19, or under age 24 and a full-time student, or permanently and totally disabled, regardless of age.
- **Residency Test**—Lived with the taxpayer in the U.S. for more than half the year.

### **Relationship and Age Tests**

The CPS ASEC provides the age and relationship of all household members in relation to the householder. In cases when at least one parent resides with a child, it is possible to identify the parent using a parent pointer, but, when no parent is present, the exact relationship of a child to adults may not be known (unless the child is a direct descendent, such as a grandchild).<sup>12</sup> All that would be known when the child is not a direct descendent is whether the child is related or not related to the householder.

### **Residency Test**

To be a qualifying child for EITC, the child must have resided in the household for more than 6 months. The CPS ASEC does not include information on how much of the year the children lived with a potential EITC recipient. All children are considered to have lived with the EITC-eligible individual in the U.S. for the required length of time. Therefore, no children are disqualified in the modeling due to a disqualifying residency outside of the EITC-eligible individual's home.

### **Adjusted Gross Income Tiebreaker (Qualifying Child of More than One Taxpayer)**

Under the TY 2005 definition of a qualifying child, a child may be the qualifying child of more than one taxpayer (i.e., the child's parent and the child's grandparent, if they lived in the same home). In this situation, only one person may claim the child for EITC.

IRS Publication 596 provides an example that demonstrates that the taxpayers may decide how to allocate the qualifying children:

“You and your three children live with your mother all year long. You are 25 years old. Your only income was \$9,000 from a part-time job. Your mother's only income was \$20,000 for her part-time job. Your

<sup>12</sup> The variable is “a-parent” and identifies the parent of the child. The 2007 CPS ASEC (TY 2006) added two variables that allow for the identification of both parents.



children are the qualifying children of both you and your mother because they meet the relationship, age, and residency tests for both you and your mother. Only one of you can use each child to claim EIC. However, you and your mother can split the three qualifying children between you. For example, you can use one child to claim EIC, and your mother can use the other two.”<sup>13</sup>

When determining the assignment of qualifying children, preference was given to the parent(s). However, if the parent(s) had no income or had more than two qualifying children, the (additional) qualifying children were reassigned within the family (to a grandparent, uncle, etc.) if the parent’s tax position was not harmed (increased tax liability). In these situations, the parent would have no known economic incentive to block the other family member from claiming the child(ren) for EITC. Because family members may decide how to allocate the qualifying children, it is possible that family members may try to maximize the amount of the total legal credit the household will receive; however, in the syntax as currently written, if the parent had income and fewer than three qualifying children, the children were kept with the parent.

### **Citizenship (Resident Status)**

The CPS ASEC provides the U.S. citizenship status of all respondents. However, if the respondent is not a U.S. citizen, CPS ASEC does not provide whether the person is a legal resident with a Social Security number eligible for employment (which is a requirement for EITC eligibility), or if he or she is an illegal resident. Noncitizens are required to reside in the U.S. for the entire tax year in order to be eligible for EITC. CPS ASEC does provide the location of residence of the respondent 1 year prior to the interview date. Noncitizens who resided outside the U.S. in the previous survey were disqualified for EITC in the model. The remaining group of nonresidents was included in the group of eligibles, if they passed the remaining EITC requirements (income, age, etc.).

### **Income**

The Earned Income Tax Credit is allowed to individuals/families based on the amount of earned income that they receive during a tax year.<sup>14</sup> Additionally, individuals/families are disqualified for the credit if their investment

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<sup>13</sup> TY 2005 publication, page 18, example 3.

<sup>14</sup> Earned income generally consists of wages, salaries, tips, net earnings from self-employment, and gross income received as a statutory employee.

incomes exceed the maximum for the applicable tax year (\$2,700 in TY 2005). The amounts of earned income, investment income, and AGI are estimated from the amounts reported by the survey participants.<sup>15</sup> However, some limitations of the CPS ASEC data exist. They include:

- A person who files Form 2555 relating to the receipt of foreign-earned income is not eligible for EITC. Since CPS ASEC does not include information on the receipt of foreign income or the filing of Form 2555, no individuals were determined to be ineligible for EITC due to the receipt of foreign income. In TY 2005, there were 308,000 total tax returns filed with Form 2555, with 191,000 having an IRS-computed AGI of \$37,000 or less.<sup>16</sup>
- Individuals/families with investment income exceeding a certain threshold in the applicable year are not eligible for EITC. Investment income includes taxable interest income, tax-exempt interest income, dividend income, capital gains, and net income from rents and royalties derived from real estate. The amount of capital gains reported by CPS ASEC is imputed by the Census Bureau via a match with Statistics of Income (SOI) data. The match is not an exact match; rather, it is based on a “categorical” match and may not be accurate at the individual level. Therefore, the CPS ASEC estimate of capital gains was not included as investment income, and no individuals were determined to be ineligible for EITC because they received capital gains that would have caused them to exceed the investment income limitation.<sup>17</sup>

GAO conducted an analysis to determine the impact the missing capital gains may have had in the determination of eligibility for their TY 1999 study that estimated participation rates. Below is an excerpt from their TY 1999 participation study regarding this issue:

“The CPS does not contain all of the information needed to determine eligibility. Data such as capital gains and contributions to individual retirement accounts are not requested in the CPS survey. However, it is likely that the missing data have little effect on our participation

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<sup>15</sup> It should be noted that the householder reports the income for all members of the household and may provide estimates for persons for whom the householder has less than perfect knowledge.

<sup>16</sup> IRTF housed on the Compliance Data Warehouse.

<sup>17</sup> The CPS individual is assigned a category based on age, income, location, etc. Then, persons from the SOI public use file are grouped into the same categories. Then, the persons are matched on categories, and the capital gains from the individual in the SOI public use file are assigned to the person in the CPS data file.

estimates. These types of income and deductions are not common for the lower-income people who may be eligible for the credit. To verify this, we examined the tax returns of households in the 1996 Statistics of Income Public Use File, the most recent data available. We found that no more than 3 percent of households that met the other income limits for credit eligibility had these types of income and deductions.”

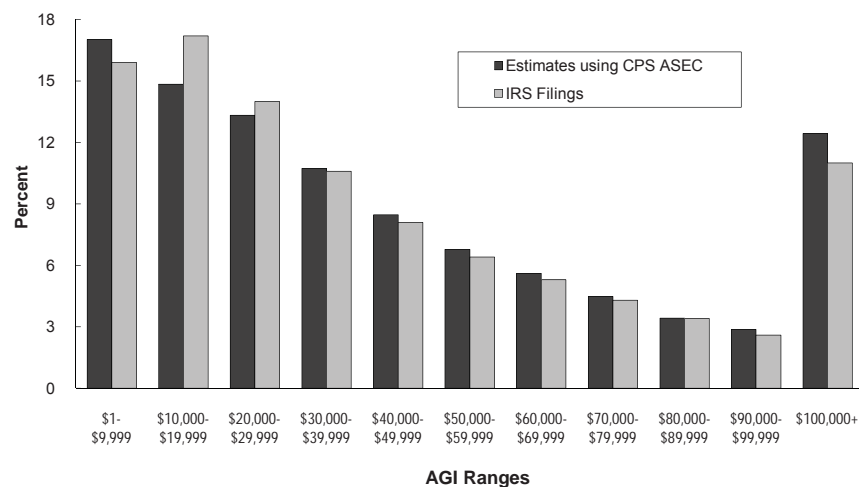
- Individuals whose AGI exceeds the limitations are not eligible for EITC. Several items used in determining AGI were not available in the CPS ASEC, including (but not limited to) taxable refunds, IRA and other retirement plan contributions, medical savings account deductions, moving expenses, self-employed health insurance deductions, penalties on early withdrawal of savings, and alimony paid. Income from trusts is also not available. Therefore, AGI will be understated for those individuals who had taxable refunds and capital gains and overstated for those individuals who had deductions and capital losses. Social Security income is included in the AGI calculation.
- Income computations are only as valid as the data provided by the respondent. Some respondents will intentionally or unintentionally provide incorrect information leading to incorrect estimates of income (earned income, investment income, and AGI). If the incorrect data are reasonably close to the true value, the number of taxpayers estimated to be eligible for EITC will not be significantly affected.<sup>18</sup> It is unknown if there are offsetting errors caused by some respondents underestimating their incomes and other respondents overestimating their incomes.

Finally, over the course of conducting the Exact Match, Census Bureau analysts discovered that about 18 percent of tax units estimated to be EITC-eligible had at least one income variable amount allocated. Amounts are assigned (imputed) when the respondent refuses or cannot provide the requested information. The amount imputed is based on the respondent’s demographics and the income of others who reported their income in the same demographic category.

<sup>18</sup> However, the estimated amount of EITC the taxpayer is eligible to receive will have more error as the amount of EITC is directly related to income.

Figure 1 provides a comparison of modeled AGI and actual AGI for the population over 18 with positive AGI in TY 2005. The light bars represent AGI reported by taxpayers to the IRS, and the dark bars represent the AGI computed using CPS ASEC data.

**Figure 1. Actual Tax Return and Estimated CPS ASEC AGI Comparison for TY 2005**



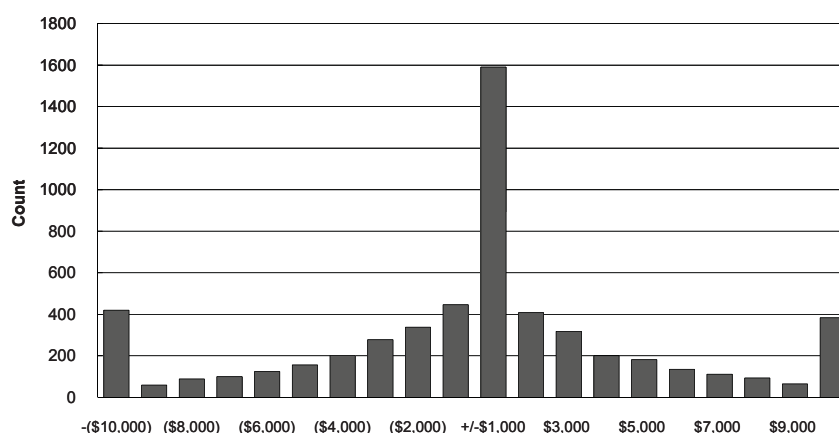
SOURCES: 2006 CPS ASEC and TY 2005 IRTF housed on CDW.

The difference in the \$10,000 to \$19,999 income category is potentially attributable to higher income taxpayers underreporting their incomes, therefore artificially raising the percentage of taxpayers in the \$10,000 to \$19,999 range. The difference may also be a result of tax units modeled in the CPS ASEC that do not file a tax return; and the W&I Research algorithm does not generate tax units for adult dependents (college students) as they are not eligible to receive EITC.

It should be noted that Figure 1 is not a result of a matched dataset. It was produced by creating two income distributions from the two datasets and combining them into one chart. Figure 2 is the result of matching the CPS ASEC set of taxpayers modeled eligible for and paid EITC to their tax return information. Figure 2 depicts the differences between the IRS AGI and CPS ASEC estimated AGI categorized into \$1,000 increments. Differences of less than \$1,000 (plus or minus) were grouped together. The group with the highest count had a difference in estimated and actual AGI of plus

or minus \$1,000. For nearly every case where CPS ASEC AGI was overestimated, there is another case where it was underestimated, which explains why the aggregate AGI distributions shown in Figure 1 match as well as they do (the errors offset at the aggregate level). The counts of returns at the ends of the distribution with differences of at least \$10,000 comprise 14 percent of all returns.

**Figure 2. Difference between IRS AGI and CPS ASEC Estimated AGI**



SOURCE: TY 2005 IRS-CPS ASEC Exact Match.

### Filing Status

A taxpayer whose filing status is Married Filing Separate is not eligible to receive EITC. The filing status used for return preparation is not collected by the Census Bureau, but the survey does collect the person's current marital status (never married, married, divorced, and separated). Individuals who have no children, and who reported their marital status as separated, were assigned a filing status of Married Filing Separate and were not identified as eligible.

Taxpayers who were separated from their spouses for the final 6 months of the tax year and who have children are potentially eligible to use the Head of Household filing status. In the CPS ASEC data, individuals reporting children and a marital status of separated were examined to determine if their marital status was separated in the previous year (indicating they were likely separated the final 6 months of the year). If they reported their status as any status other than separated in the previous supplement, they were assigned a filing status of Married Filing Separate in the current

year.<sup>19</sup> For TY 2005, 4.9 percent of the tax units identified as eligible for EITC from CPS ASEC had a marital status of “separated.”<sup>20</sup>

EITC is currently structured such that taxpayers using the filing status Married Filing Joint are able to receive a higher credit than those who file with other statuses when their AGIs or earned incomes are in the phaseout region of EITC eligibility. Families who had both spouses present in the household were assigned a marital status of Married Filing Joint and modeled to be eligible for the higher credit, when their incomes dictated.

## CPS ASEC-IRS Exact Match Method of Estimating EITC Participation

### Census Bureau Processing with the CPS ASEC Internal File

The CPS ASEC is an annual supplement to the basic monthly Current Population Survey. Approximately 10 percent of households in the sample fail to complete ASEC interviews. These cases are evaluated to determine whether sufficient information exists to impute ASEC responses from a similar case. Based on key demographic characteristics, all survey responses from another case are imputed to replace the missing data. The Census Bureau and the IRS agreed that these fully imputed cases were unsuitable for a record check analysis, as the data in these records would not be expected to match administrative record data.

**Table 2: Incidence of Full Record Imputation (2006 CPS ASEC)**

	Unweighted	Weighted	Percent of weighted
ASEC reported	189,112	264,170,000	89.9%
Fully imputed	19,450	29,664,000	10.1%
Total	208,562	293,834,000	100.0%

Source: Data Integration Division, U.S. Census Bureau

### Person Identification Validation System

To enable the file linkage, the input files are processed through the Person Identification Validation System (PVS). The PVS compares identifying name, address, and date of birth due data from the CPS ASEC against a

<sup>19</sup> As a result of the sampling structure set up by CPS ASEC, approximately 50 percent of the households in this year's CPA ASEC dataset will be present in the previous year's CPS ASEC dataset.

<sup>20</sup> The predominant marital status was “never married” at 35.5 percent, followed by married (spouse present) at 32.9 percent.

reference file and assigns a unique identifier to records with verified data. Similarly, name, address, and SSN from the individual tax returns are compared to the reference file and assigned a unique identifier. In compliance with Census Bureau privacy policy, survey records lacking respondent consent for data linkage are not processed through PVS. Due to technical constraints, the PVS does not process records where the first name and last names are missing. The output file of the PVS process contains: all verified records; all nonverified records, including those where multiple matches were found; and all original records withheld from the PVS process due to linkage refusals or incomplete identifying data. Only validated and uniquely identified records are used in this study. A unique nine-digit protected identification key (PIK) is assigned to each validated record. The PIK is the linking key used in Census Bureau administrative record research projects; SSNs are not used.

The 2006 CPS ASEC survey marked an important change regarding the assignment of validated PIKs: It was the first survey year in which the SSN was not requested from respondents. In prior years, responses to the SSN question had fallen. This limited the number of persons who could enter the PVS process. New language obtaining consent from respondents—without asking for the SSN—permitted more cases to enter the PVS process and obtain PIKs.

**Table 3: Refusal To Provide SSN or Linking Authorization  
(Unweighted Counts)**

	2003 CPS ASEC	2004 CPS ASEC	2005 CPS ASEC	2006 CPS ASEC
Refused	36,793	49,026	50,846	259
% of Total	17.0%	23.0%	24.1%	0.1%
Total	216,424	213,241	210,648	208,562

Source: Data Integration Division, U.S. Census Bureau

Not all records receive PIK in this process. The primary components of the reference file are IRS and SSA Numident data. The Numident file only includes information on persons who have SSNs. The process fails to assign PIK to groups of persons, including undocumented residents, and persons with Individual Taxpayer Identification Numbers (ITINs). Persons with multiple matches also fail PVS and do not receive PIKs. A growing number of survey respondents fail to provide their first and last name data. These cases cannot enter the PVS process and lack PIK as well.

**Table 4: PVS Results for 2006 CPS ASEC (Unweighted Counts)**

No authority to link	259	0.1%
Missing first and last name	2,299	1.1%
Found in Geokey search	175,237	84.0%
Found in name search	9,221	4.4%
Multiple matches	468	0.2%
Not found	21,078	10.1%
Total	208,562	100.0%

Source: Data Integration Division, U.S. Census Bureau

The increased number of persons entering the 2006 CPS ASEC PVS process resulted in an increased number of persons with PIKs. The 2006 CPS ASEC increase in PIK affected adults more than children.

**Table 5: Adult-Child Distribution of PIK Increase (Unweighted Counts)**

	2004 CPS ASEC	2005 CPS ASEC	2006 CPS ASEC
Adults	103,777	100,076	139,958
Children	47,342	46,672	44,500
Total verified	151,119	146,748	184,458

Source: Data Integration Division, U.S. Census Bureau

Table 6 provides a breakout of citizenship status of tax units modeled EITC-eligible and how many records were included in the final analysis.<sup>21</sup> Noncitizens were much less likely to be included in the final analysis because 29.5 percent were dropped as result of not being able to assign a PIK. This percentage is three times larger the CPS ASEC respondent universe (10.1 percent). This result raises questions about their initial eligibility determinations based on the modeling when their SSN status is unknown.

**Table 6: Citizen Status of CPS ASEC Records (Unweighted Counts)**

	Number Modeled Eligible	Number Remaining after Removal of Non-PIKed and Imputed Records	Percentage included in Analysis
Citizen	11,647	6,605	56.7%
Non-citizen	2,292	805	35.1%
Total	13,939	7,410	53.2%

Source: Data Integration Division, U.S. Census Bureau

<sup>21</sup> The CPS variable for citizenship status, PRCITSHIP, was used because the survey does not ask whether the respondent has an SSN. It is an imperfect proxy for having an SSN because some noncitizens can obtain an SSN, and some citizens may not have an SSN.



## Data

### Tax Returns from the Individual Returns Transactions File

The IRS annually provides the Census Bureau administrative records containing tax return information under 26 U.S.C. § 6103 (j)(1). The variables transmitted to the Census Bureau under this agreement are:

1. Name, address, and taxpayer identifying number of the taxpayer and spouse
2. Marital status
3. Number and type of exemptions (dependents)
4. Wages and salary income
5. Dividend income
6. Interest income
7. Gross rent and royalty income
8. Social Security income
9. Total of wages, interest, dividends, alimony, business income, pensions, rents, royalties, farm income, unemployment compensation, and Social Security benefits.
10. AGI
11. Indicator variables for Schedules A, C, D, E, F, and SE and Form 8814.

Other CPS ASEC tax model evaluation projects have used the data. This project uses the return level data on filing status, AGI, and number of children at home exemptions. The return level data are processed through the PVS, and records with validated information are assigned PIKs. ITINs on the file do not receive PIKs because those numbers are not present on the Numident file. Future refinements of our PVS process will address this issue, potentially reducing the number of non-PIK cases restricted from the analysis. The 1040 file is delivered for each filing year. Analysis proceeds when all 52 weeks are received at the Census Bureau.

The exact match occurs by linking records in the CPS ASEC to the 1040 file by PIK. This allows us to append tax return data to the survey record for the same individual. A key benefit to this analysis is the ability to evaluate 1040 filing and EITC-claiming behaviors of the EITC eligible

population, based on the CPS ASEC survey responses. For Tax Year 2005, 79,107 individual income tax returns matched to the nearly 140,000 CPS ASEC adults with PIKs. We are confident that the PVS produces high-quality PIKs on the survey data. The IRS data have very high-quality identifying information, which also results in high quality PIKs. Therefore, joining the files by PIK provides data from both agencies on the same subset of the population. The records that did not receive PIKs were not investigated in this study.

This transmission does not contain late-filed returns (for example, a TY 2005 return filed in Calendar Year 2007 would not be included in the normal Form 1040 delivery).

### **EITC Returns Extract**

The data in the Form 1040 transmission allow fact of tax return filing to be determined for CPS ASEC respondents, but they do not identify which filers were paid EITC. In order to identify who was paid EITC, the IRS negotiated a contract under 26 U.S.C. § 6103 (n) with the Census Bureau. Under the contract, the IRS agreed to transmit four additional EITC variables for TY 2005 to the Census Bureau: earned income amount, number of EITC qualifying children, taxpayer-reported EITC amount, and IRS-computed EITC amount.

Taxpayers claiming EITC on their TY 2005 tax returns or subsequent amendments (including taxpayers paid EITC because of a CP-09/27 eligibility notice), through the end of Calendar Year 2007, were included in the data transmission to the Census Bureau. There were 23,296,704 records meeting these criteria. Although some TY 2005 EITC claims arrived after the cutoff date, this transmission accounted for 99 percent of EITC claims.<sup>22</sup>

This second set of IRS data was processed through PVS to assign PIK to enable data linkage, resulting in 14,081 returns matching PIK in the CPS ASEC. Input files from the IRS are processed in the Data Integration Division and protected per instructions in our Interagency Agreement and IRS Publication 1075.

The matched sample of EITC-eligible persons from the CPS ASEC data and IRS administrative data indicating who received EITC enable production of EITC participation estimates using our Exact Match methodology.<sup>23</sup>

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<sup>22</sup> As of October 15, 2008, there were 23,465,092 TY 2005 returns filed meeting the condition.

<sup>23</sup> The accuracy of the estimates is discussed in the limitations section.

## ITIN Extract

To investigate how missing ITINs could impact modeling efforts and the participation rate estimate, IRS transmitted an extract of 3,000,000 ITIN filers.<sup>24</sup> These administrative record cases were first linked to CPS ASEC persons on name and address, then on name alone. We wanted to check whether the survey data on citizenship and migration permitted accurate modeling of EITC eligibility. Any return with an ITIN, whether the primary or secondary filer, is ineligible for EITC. The name match determined that 565 persons were common between the files.<sup>25</sup> None of those persons had been modeled EITC-eligible.<sup>26</sup> While more research is needed on this subset, this preliminary finding indicates that the survey questions on citizenship may permit adequate modeling.

The original set of CPS ASEC tax units identified as EITC-eligible contains an unknown number of tax units that are not eligible for EITC—U.S. residents without an SSN valid for employment. The error of not being able to exclude these residents will upwardly bias the number of taxpayers eligible for EITC and the number of nonclaimants. The inclusion of additional ITIN data in future years may help reduce this known but unquantified bias.

## Combined 1040-EITC Data

The combined 1040-EITC file was expanded from return level to person level. The combined file contained 41,824 single and head of household returns. Of the 79,112 returns, 37,288 were married filers. Both spouses received PIK in 33,083 of these returns, leaving 4,205 with only one spouse receiving PIK. The other spouses may have failed validation for a number of reasons: they may have lacked sufficient name or date of birth information, they may not have had an SSN, or they may have had multiple matches. After expanding the married returns to person records with PIK, the IRS data contained 112,195 records.

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<sup>24</sup> ITINs used in the primary or secondary position on TY 2005 tax returns and their associated spouses, if present.

<sup>25</sup> The limited number of ITIN taxpayers matching the CPS ASEC database may be a result of limited information available to identify a CPS respondent. W&I Research is working to provide additional information for future matches to provide better identifying information.

<sup>26</sup> The vast majority of the validated ITIN population had a citizenship classification as foreign born, noncitizen (89 percent). Most taxpayers with an ITIN that were validated did not have imputed earnings (90 percent) and did not have self-employment income (97 percent); most were between the ages of 25 and 44 (55 percent); only three taxpayers were over the age of 55. Most taxpayers with an ITIN that were PIKed did not have a high school education (55 percent).

The 1040 and EITC data files containing PIKs present in the CPS ASEC were combined by survey person identifiers. The analytical files do not contain any personally identifiable information: no SSNs, no names, no addresses, no dates of birth, and no PIK, only survey person identifiers.

### **Allocated Earnings**

CPS ASEC respondents are asked about their labor force participation and earnings. Persons who report being employed are asked for their hours and earnings. 10 percent of survey respondents do not report an earned income amount. Using other variables, earnings are allocated from another respondent with similar characteristics to the person with missing data. This hot-deck imputation produces \$1.2 trillion in earned income, comprising 20.4 percent of total earnings in the survey. The income allocation in the CPS ASEC is not State-specific; a donor record is not necessarily from the same State or region as the recipient record. The allocated values are sufficient for analyses at the national level when viewing the entire earnings distribution. Allocated values are not designed for use at the person level. As a result, the allocated amounts often differ substantially from income reported to the IRS for the same person. The quality of allocated income amounts will be evaluated in the future. At this time, cases with allocated earnings were removed from the analysis.

### **Reweightings**

The Census Bureau computes person weights for the CPS ASEC file that sum to the population controls for the civilian, noninstitutionalized population of the United States. By removing nearly one-quarter of the initial person records—those lacking PIKs, those with fully imputed data, and those with allocated earnings—the weights no longer aggregate to the population count. The removed cases are missing income data that are essential for modeling EITC eligibility, regardless of their reasons for being missing. As in other administrative record research projects, we assume that the data are missing at random and inflate the person weights on the remaining cases to reflect the population count. The procedure is similar to the nonresponse weighting adjustment the Census Bureau and other survey researchers use. Adjustment factors are calculated for the following grouped variables: age, marital status, race, and Hispanic origin. Some of the groups created by crossing all of these variables are very small. Cells are collapsed to bring the count (in each cell after the collapsing procedure) to at least 50 for the:

1) under age 24 and married; 2) age 65 and older, not married, and Hispanic; and 3) age 65 and older, married, and Hispanic. After calculating the adjustment factors for the groups, the appropriate factor is applied to each sampled person's survey weight, which the Census Bureau calculates for each person based on many characteristics. Data used to develop the adjustment factors are shown in Table 7.

**Table 7: Reweighting Factors, by Partition (2006 CPS ASEC)**

Age	Married	Hispanic	Race	Count	No PIK	With PIK	% w PIK
<24	N	N	White	46465	8677	37788	81.3%
<24	N	N	Black	8628	2285	6343	73.5%
<24	N	N	Aian [1]	943	265	678	71.9%
<24	N	N	A/Nhopi [2]	2851	934	1917	67.2%
<24	N	N	Other	2715	478	2237	82.4%
<24	N	Y	White	14018	4269	9749	69.5%
<24	N	Y	Black	444	137	307	69.1%
<24	N	Y	Aian	232	69	163	70.3%
<24	N	Y	A/Nhopi	108	28	80	74.1%
<24	N	Y	Other	507	129	378	74.6%
<24	Y	N	White	930	253	677	72.8%
<24	Y	N	Black	82	31	51	62.2%
<24	Y	N	All Other	78	30	48	61.5%
<24	Y	Y	All	586	354	232	39.6%
<24	N	N	White	20999	6139	14860	70.8%
24 to 64	N	N	Black	6536	2248	4288	65.6%
24 to 64	N	N	Aian	643	207	436	67.8%
24 to 64	N	N	A/Nhopi	1647	729	918	55.7%
24 to 64	N	N	Other	911	249	662	72.7%
24 to 64	N	Y	White	5414	2433	2981	55.1%
24 to 64	N	Y	Black	233	87	146	62.7%
24 to 64	N	Y	Aain	108	56	52	48.1%
24 to 64	N	Y	A/Nhopi	57	27	30	52.6%
24 to 64	N	Y	Other	146	59	87	59.6%
24 to 64	Y	N	White	51670	13067	38603	74.7%
24 to 64	Y	N	Black	4875	1730	3145	64.5%
24 to 64	Y	N	Aian	549	172	377	68.7%
24 to 64	Y	N	A/Nhopi	3963	1475	2488	62.8%
24 to 64	Y	N	Other	1068	261	807	75.6%

Footnotes at end of table.

**Table 7. Reweighting Factors, by Partition (2006 CPS ASEC)—Continued**

Age	Married	Hispanic	Race	Count	No PIK	With PIK	% w PIK
24 to 64	Y	Y	White	10089	4194	5895	58.4%
24 to 64	Y	Y	Black	213	99	114	53.5%
24 to 64	Y	Y	Aian	144	62	82	56.9%
24 to 64	Y	Y	A/Nhopi	78	34	44	56.4%
24 to 64	Y	Y	Other	219	79	140	63.9%
65+	N	N	White	6259	1050	5209	83.2%
65+	N	N	Black	1393	299	1094	78.5%
65+	N	N	Aian	101	20	81	80.2%
65+	N	N	A/Nhopi	375	95	280	74.7%
65+	N	N	Other	143	17	126	88.1%
65+	N	Y	All	805	169	636	79.0%
65+	Y	N	White	8679	1573	7106	81.9%
65+	Y	N	Black	877	171	706	80.5%
65+	Y	N	Aian	54	12	42	77.8%
65+	Y	N	A/Nhopi	584	185	399	68.3%
65+	Y	N	Other	187	29	158	84.5%
65+	Y	Y	White	900	191	709	78.8%
65+	Y	Y	NonWhite	56	11	45	80.4%

[1] American Indian or Alaska Native

[2] Asian/Native Hawaiian or Other Pacific Islander

Source: Data Integration Division, U.S. Census Bureau

## Record Linkage of IRS and Survey Data

The reweighted CPS ASEC file was matched to the IRS 1040 and EITC files by PIK, retaining survey person and household identifiers. This file contained the modeled tax filing units to be used in determining eligibility. As the modeled return information was assigned to the presumed tax filer, the file could now be collapsed back to the return level. The file was unduplicated at this point. A preliminary review indicated that many duplicate returns were due to second returns being filed to correct filing status and income amounts.

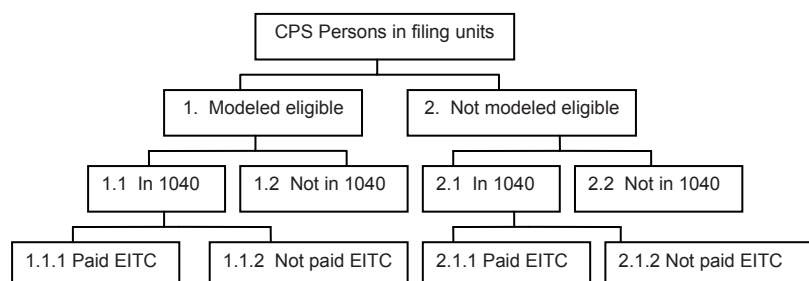
Four general results are possible when attempting to match an EITC-eligible CPS ASEC respondent to the IRS tax return data:

- A match occurs between the two databases, and the respondent received EITC from the IRS (Figure 3–Box 1.1.1)
- A match occurs between the two databases, and the respondent did not receive EITC from the IRS (Figure 3–Box 1.1.2).

- No match occurs, indicating the respondent did not file a return (Figure 3–Box 1.2).
- No match occurs because the respondent did not obtain a PIK. This group was excluded prior to matching the datasets.

Figure 3 displays a tree detailing all of the possible combinations of CPS ASEC eligibility status, filing status, and claimant status.

**Figure 3. Potential Results of Matched Datasets**



At this point, a participation rate could be calculated by dividing the number of records in box 1.1.1 by the total number of records from box 1. Computing participation rates at this step assumes CPS ASEC respondents: accurately report their incomes to the Census Bureau, accurately report their incomes to the IRS, and follow modeled filing behavior.<sup>27</sup>

The taxpayer participation rate that results is 63 percent, which is substantially lower than previous estimates by other researchers. Our assumptions do not always hold and warranted further investigation.

The number of returns per household based on IRS filing units and on modeled survey filing units was tabulated. It was clear that the modeling predicted too many filing units in some households, and too few filing units in other households. Even in households where one unit was modeled and only one claimed, the modeling may have assigned the tax head to a person other than the claimant. The difficulty of modeling behavior was clear: the modeled filers did not always match the actual filers, and the assignment of qualifying children was often puzzling and sometimes illogical. The

<sup>27</sup> Assumptions 1 and 2 also imply that filers report their incomes to both agencies using similar income concepts. However, this may not be the case. For example, a respondent could report gross wages to the Census but taxable wages to the IRS.

mismatch of expected filing units (thus income and credit amounts) and actual filing units demanded revision of the modeled units.

Without adjustments to correct for instances when any of the three assumptions do not hold, the estimated participation rate will be in error (and understated). Therefore, the initial set of EITC-eligible respondents was reevaluated to ensure that income reported to both agencies was within reasonable agreement. In addition, households that had at least one unanticipated tax unit were investigated to ensure that legal taxpayer behavior was incorporated into the participation estimate.

### **Realigning EITC Eligibility**

The data were evaluated to determine how well the model predicted actual filing behavior. The modeled cases were realigned per the actual return where deemed appropriate. Some of these modifications were made to best utilize the IRS data. Two objective adjustments were made to address unpaid claims and married separate filers. The special EITC extract transmitted to the Census Bureau included variables on the amount of EITC claimed and the amount actually paid. The flag used to this point had included the presence of any EITC information on the return. At this point, only cases with EITC paid were used in the analysis. This seemed appropriate to do when computing the participation of persons who received the credit. The second adjustment removed eligibility for persons who filed married separate returns. EITC rules prohibit married separate filers from claiming the credit. Using the household information in the CPS ASEC, modelers are unable to predict which household will choose to file married jointly or married separate. The filing category variable transmitted by the IRS was used to make this adjustment. These two adjustments reduced the number of eligible modeled filers by 225,000, from 18.27 million to 18.05 million.

Additional, more subjective, changes were made to modeled filers. These adjustments were made following IRS 1040 and EITC instructions, with consultation from W&I staff. Clerical review of the households with one or more EITC claimants per model or per IRS revealed that many households claimed children differently than the model had predicted, or did not claim children present in the survey at all. Additionally, childless households in the survey filed returns with EITC qualifying children. More analysis is needed to determine whether the unclaimed children in some returns and the unanticipated children in other returns balance out when viewing the national survey results.



The cases that could be altered were those where children were modeled to one adult but claimed by another. A similar situation occurred when one adult was modeled and another in the household was the claimant. The filing status and qualifying child assignment for these units were flagged and adjusted manually. These adjustments resulted in a 231,000 increase in eligible returns, bringing the total to 18.28 million. The adjustments also affected the numerator of the participation rate, with a 337,000 increase, bringing the total of matched eligible units who received the credit to 11.96 million.

The following scenarios provide specific examples of when eligibility was reassigned.

- Two unmarried adults live in the same household with one child. Adult A is the known parent of the child and was modeled as eligible for EITC. Adult B actually claimed EITC with one qualifying child. In the 2006 CPS ASEC, information identifying the second parent was not collected; however, if the second adult was a known relative (grandparent, aunt, etc.) of the child, then eligibility was reassigned to Adult B (if income thresholds permitted). If Adult A claimed childless EITC, he or she was not counted as an eligible claim due to the rule that disallows taxpayers from claiming EITC if they have a qualifying child who was claimed for EITC on another person's tax return.
- Same situation as 1, except Adult A is the known parent of two children in the household. If both adults claimed EITC using one qualifying child, both claims were counted as legal claims.
- Same situation as 2, except Adult B is not related to Adult A but was within 20 years of Adult A. It was assumed that Adult B was cohabitating with Adult A and was the other parent of the child and therefore eligible to claim the credit. EITC eligibility was reassigned to Adult B.

Changes to this point were made based on a person mismatch that shifted the filing assignment within the unit. There were still many cases where qualifying child(ren) were modeled differently than the administrative record indicated. The data were reviewed to determine the best approach to address these seemingly eligible units. In the majority of these cases, children were assigned to a filer who did not actually claim them. If the IRS child at home exemption flag verified that no children (or fewer than

modeled) were present on a return, then, based on a cursory AGI test, the unit was removed from eligibility. This stage also removed eligibility in cases with overstated survey income. The incidence and extent of survey tax return income reporting discrepancies will be addressed in the future. At this time, it seemed appropriate to remove eligibility on a combination of tax return qualifying child (QC) and income data. The following rules were applied to automatically remove eligibility for households meeting these conditions:

- 0 qualifying children were modeled, no child exemptions were present, and AGI was greater than \$11,750.
- 1 qualifying children was modeled, no child exemptions were present, and AGI was greater than \$34,000.
- 2 qualifying children were modeled, 2+ child exemptions were present, and AGI was greater than \$38,000.
- 2 qualifying children were modeled, 1 child exemption was present, and AGI was greater than \$32,000.

These changes impacted both the number of eligible and number of paid returns for our analysis. The number of eligible cases fell from 18.28 million to 14.99 million, a 3.29-million reduction. The number of paid returns fell from 11.96 million to 11.29 million, a 668,000 reduction. This reduction of 668,000 taxpayers seems to indicate that the Census Bureau algorithm may not have been precise enough when identifying cases that did not appear eligible. This algorithm will be investigated for future improvement.

Future research projects will investigate households that did not have a tax unit identified as EITC-eligible, but were paid EITC, as there are likely to be cases where EITC eligibility was incorrectly modeled. We have preliminarily identified tax units who reported no earned income to the survey but the tax return reported wage income. If all other information between the two agencies agrees and income amounts are within EITC tolerances, these tax units could have their eligibility reassigned. To facilitate this effort, an approximation for gross wages from W-2s will be computed and transmitted to the Census Bureau for future work. The W-2 will confirm the existence of earned income, and gross wages from the W-2 will be used to determine if income discrepancies between the two agencies are a result of CPS ASEC respondents reporting gross incomes to the Census Bureau and taxable incomes to the IRS.

## Results

### Participation Estimates after Adjustments

After the filing units were realigned, the taxpayer participation rate (TPR) was computed by dividing the number of modeled units who received the EITC per IRS by the total number of modeled units. This analysis used the CPS ASEC-modeled eligibles as the base and used the record check methodology to assess participation. Note that W&I Research originally predicted eligibility for 13,393 records, but fewer than 9,000 were used in the TPR computations. 15 percent (2,036 records) were omitted because no PIK was assigned to the survey record. 9 percent (1,022 records) of those remaining were omitted because their survey data were fully imputed. Of those left, 18.1 percent (1,873 records) were omitted because their earnings amounts were imputed.

Of the 14,081 EITC recipients PIKed by the Census Bureau, only 76 percent were used in the TPR computation.<sup>28</sup> These records will be evaluated in the future to determine why no eligibility was modeled given the CPS ASEC information. It is anticipated that the presence and assignment of EITC-qualifying children and income reporting differences between the agencies will be important factors.

W&I Research estimated 19.05 million tax units (single persons or families) eligible to claim \$31.4 billion for TY 2005. The total counts of eligible taxpayers in the following tables sum to just under 15 million (14,988,890), a reduction of about 4 million from those originally modeled (because of the adjustments previously described). The true number of taxpayers eligible to receive EITC for TY 2005 has not been determined as of the writing of this report (due to the issues previously discussed that still require investigation), but it is likely to be larger than the 14.9 million reported in the following tables and less than the originally modeled 19.05 million. The reader should realize that future adjustments to the population identified as eligible for EITC will alter the participation estimate. Additionally, the number of nonclaimants will likely increase with future revisions (but that does not necessarily mean the participation rate will decrease if the number of claimants increases proportionately).

Based on the results of the match and subsequent adjustments, an estimated 11.3 million of the remaining 14.9 million taxpayers included in the

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<sup>28</sup> Based on the TY 2001 NRP audit results of individual tax returns, about 65 percent of TY 2001 EITC claimants were EITC-eligible. In TY 2002, tax law changes went into effect that may have reduced the percentage of taxpayers who were noncompliant.

analysis were paid EITC, resulting in a participation rate of 75 percent (+/-2 percent). (Again, the reader should note this count of 11.3 million likely understates the true number of eligible recipients and will be revised.) Table 8 provides a breakout of the number of eligible tax units who filed a tax return. Most of the tax units who were identified as eligible for EITC filed a tax return (84 percent) and were paid EITC (75 percent). Taxpayers who do not file a tax return account for about two-thirds of nonparticipants (2.4 million out of 3.7 million nonclaimants).

**Table 8: Census Eligible Population, by Filing Status**

Filing Status	EITC Status	Eligible Count	Eligible Percent
Filed	Paid	11,289,390	75.3%
	Not Paid	1,300,100	8.7%
Did Not File	Not Paid	2,399,400	16.0%
Total		14,988,890	100.0%

Source: TY2005 IRS-CPS ASEC Exact Match

Table 9 provides the participation rate by the number of qualifying children present in the tax unit. Not surprisingly, the participation rate increases as the number of qualifying children increases (which is directly tied to the number of dollars a taxpayer is eligible to receive). While taxpayers with no qualifying children had the lowest participation rate, it should be noted that there are more taxpayers with qualifying children who are not participating (2.3 million) than taxpayers without qualifying children (1.4 million). Taxpayers with qualifying children represent about 60 percent of the eligible nonclaimants. The participation rate for taxpayers with qualifying children is estimated to be 81 percent, which compares well to Scholz's estimate of 80 percent to 86 percent for TY 1990 (when there was no credit for childless workers).

**Table 9: Participation Rate, by Number of Qualifying Children**

Qualifying Children	Observations	Number Paid EITC (Weighted)	Number Modeled Eligible (Weighted)	Eligible Nonfilers (Weighted)	Participation Rate with Margin of Error
0	1,256	1,738,125	3,124,484	1,029,500	55.6% +/-3%
1	2,628	3,803,345	5,171,023	658,870	73.6% +/-2%
2+	3,526	5,747,930	6,693,383	713,490	85.9% +/-2%
Total	7,410	11,289,400	14,988,890	2,401,860	75.3% +/-2%

Source: TY2005 IRS-CPS ASEC Exact Match

The IRS sends eligibility notices to taxpayers who file tax returns, appear eligible for EITC, but do not claim the credit. In TY 2005, there were 622,000 of these letters sent to taxpayers notifying them of potential eligibility. In an effort to reduce mailing costs in Calendar Year 2006, approximately 100,000 to 140,000 taxpayers who normally would have been notified of their eligibility were not mailed a notice.<sup>29</sup> There likely would have been about 720,000 to 760,000 notices mailed in TY 2005 if the eligibility notices not been suppressed. Additionally, some taxpayers who appear eligible for EITC, but do not claim EITC, are not sent a notice due to the following issues:

- Current or past compliance issues related to EITC or dependents
- Uncertainty in accurately determining EITC eligibility based on return information<sup>30</sup>
- Certain types of income are present
- Taxpayer specifically indicates on the tax return that he or she does not want to receive EITC (i.e., for religious reasons).

Table 10 shows the number of taxpayers remaining eligible for EITC as the EITC rules are applied to the tax return (applying the rules in a different order would result in different intermediate counts). Steps 1 to 11 remove taxpayers who do not pass the eligibility rules, and steps 13–18 identify reasons why an eligibility notice was not sent to the taxpayer. W&I Research estimates an additional 700,000 taxpayers in TY 2005 who could have been sent a notice but did not receive one (step 12). When the number of notices that do not result in a claim is added to the number of additional notices that could be sent, the total is around one million returns (step 11). This number corresponds to the estimated number of filer, nonclaimants (1.3 million) derived from the Exact Match. It seems that the number of eligible nonclaimant filers identified as a result of the match is too high, and could indicate that the participation rate is understated. For future studies, the IRS will transmit a list of taxpayers who received one of the eligibility notices and the list of the taxpayers who could have received the notice. If the taxpayer is not in the list of payees or the list of the CP–09/27 notices (actual and suppressed), he or she will be deemed not eligible for EITC, and, if the taxpayer is in the list of CPS ASEC tax units eligible for EITC, it is anticipated that he or she will be removed from that list.

<sup>29</sup> Taxpayers who computer-prepared and printed their returns were not sent the eligibility letter.

<sup>30</sup> For example, taxpayers with dependent children over age 18 are not sent a notice because the IRS does not know if the child was enrolled in school. Dependents over 18 and not enrolled in school are not qualifying children for EITC (unless the dependent is totally and permanently disabled).

**Table 10: Step by Step Results of EITC Eligibility Determination of Nonclaimants**

Step	Tax Returns Eliminated	Tax Returns Remaining	Filter Applied
Start	—	133,646,046	—
1	126,741,070	6,904,976	Taxpayers with invalid primary TIN; taxpayers who used an ITIN; Earned Income or AGI exceeded \$37,262; taxpayers with investment income that exceeded thresholds (preliminary definition of investment income); taxpayers who claimed EITC; taxpayers using a filing status of Married Filing Separate; taxpayers with no earned income; taxpayers claimed as a dependent on another taxpayer's return
2	4,555,277	2,349,699	Taxpayers under 25 or over 64 with no dependents
3	338,013	2,011,686	Taxpayers with Earned Income exceeds QC thresholds (preliminary definition of QC)
4	348,913	1,662,773	Taxpayers with dependents over age 23 and do not meet age and income requirements
5	110,480	1,552,293	Taxpayers with investment income (revised definition) exceeding thresholds
6	12,616	1,539,677	Taxpayers with Form 2555
7	74,462	1,465,215	Taxpayers residing in U.S. territories
8	168	1,465,047	Taxpayers who had EITC manually adjusted during processing
9	8,372	1,456,675	Taxpayers who indicate they are not eligible for EITC and are not subject to self-employment tax
10	33,970	1,422,705	Taxpayers using Form 1040NR
11	366,441	1,056,264	Taxpayers paid EITC after return processing
12	267,696	788,568	Taxpayers who received an eligibility notice
13	375,462	413,106	Taxpayers with a Return Processing Code of B present
14	204,778	208,328	Taxpayers who completed their returns electronically, but printed and mailed the returns
15	113,468	94,860	Taxpayers with all qualifying children ages 19 to 23
16	11,181	83,679	Taxpayers who filed their returns in 2007 (late filers)
17	272	83,407	Taxpayers who filed as Married Filing Joint but did not report a secondary SSN/TIN
18	35	83,372	Taxpayers with a criminal investigation indicator

Source: W&I Research CP-09/27 Eligibility Algorithm applied to TY 2005 IRTF

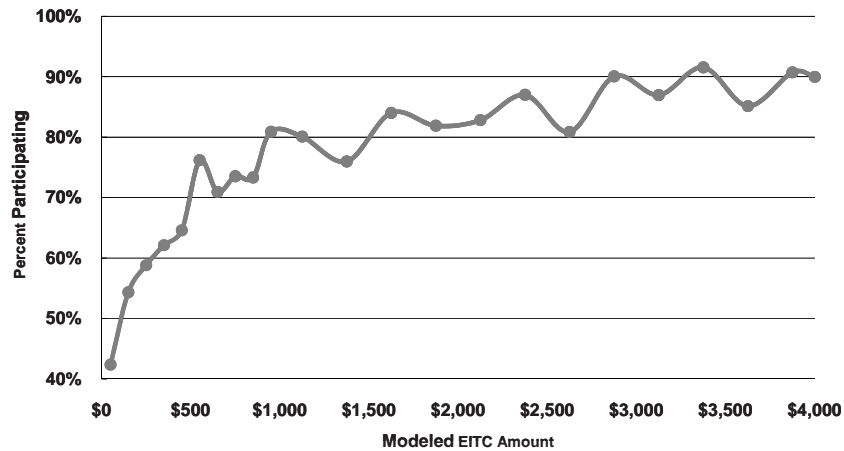
Table 11 provides the participation rate by grouped values of the EITC amount that taxpayers were estimated to be eligible to receive. The table clearly demonstrates that the participation rate increases with the amount of EITC. Taxpayers eligible for less than \$100 were paid EITC less than 50 percent of the time, while taxpayers eligible for amounts greater than \$4,000 were paid 90 percent of the time. The only dollar range that appeared to have a lower level of participation than the previous dollar range was the \$600–\$699 group, but that difference was not statistically significant. Given the relative small sample size of the \$500–\$599 group, the \$500–\$599 group may have an overstated participation estimate due to sampling variability. Figure 4 shows the participation rate versus the modeled EITC amount. Increases of \$100 in the EITC amount appear to have a larger impact on participation when the value is less than \$600.

**Table 11: Participation Rate, by EITC Amount**

Modeled EITC Amount	Number Paid EITC (Weighted)	Number Modeled Eligible (Weighted)	Participation Rate
\$1–\$99	398,515	940,524	42%
\$100–\$199	606,724	1,116,412	54%
\$200–\$299	506,430	861,120	59%
\$300–\$399	782,476	1,259,337	62%
\$400–\$499	261,608	405,019	65%
\$500–\$599	95,075	124,788	76%
\$600–\$699	208,555	294,021	71%
\$700–\$799	77,790	105,787	73%
\$800–\$899	188,804	257,437	73%
\$900–\$999	273,046	337,551	81%
\$1,000–\$1,999	2,257,904	2,792,087	81%
\$2,000–\$2,999	2,743,983	3,287,461	84%
\$3,000–\$3,999	1,297,015	1,473,187	88%
\$4,000+	1,279,818	1,422,511	90%
Not Originally Modeled Eligible	311,650	311,650	—
Total	11,289,390	14,988,890	75%

Source: TY2005 IRS–CPS ASEC Exact Match

**Figure 4. Participation Rates by Modeled EITC Credit**



SOURCE: TY 2005 IRS-CPS ASEC Exact Match.

Table 12 provides a breakout of taxpayer participation by marital status/gender and number of qualifying children. Three groups exceeded the national participation rate of 75 percent—single females with one or two (or more) qualifying children (80 percent and 90 percent, respectively) and married filers with two (or more) qualifying children (84 percent). Single, male taxpayers with no qualifying children had the lowest participation rate (48 percent). Single, male taxpayers lagged single, female taxpayers in each qualifying child category by margins of 13 percent to 21 percent.

**Table 12: Participation Rate, by Marital Status and Qualifying Children**

Marital Status	Qualifying Children	Observations	Number Paid EITC (Weighted)	Number Modeled Eligible (Weighted)	Participation Rate with Margin of Error
Married	0	156	207,571	342,554	61% +/-10%
	1	778	955,434	1,502,750	64% +/-5%
	2+	1,615	2,464,920	2,939,910	84% +/-3%
Male	0	545	683,728	1,435,040	48% +/-5%
	1	356	497,891	740,613	67% +/-7%
	2+	220	287,460	413,963	69% +/-9%
Female	0	555	846,826	1,346,890	63% +/-5%
	1	1,494	2,350,020	2,927,660	80% +/-3%
	2+	1,691	2,995,550	3,339,510	90% +/-2%
Total		7,410	11,289,390	14,988,890	75% +/-2%

Source: TY2005 IRS-CPS ASEC Exact Match



Table 13 provides the participation rate by age of the taxpayer and number of qualifying children. Taxpayers under age 25 are eligible only if they have qualifying children; therefore, it is not surprising that the participation rate for those under 25 (81 percent) is in the participation range for taxpayers with qualifying children (79 percent to 83 percent). For taxpayers older than 44, the percentage of eligible taxpayers with no qualifying children increases for each age group, which likely is contributing to decreasing participation rates (eligible taxpayers with no qualifying children have a lower participation rate than taxpayers with qualifying children).

**Table 13: Participation Rate, by Age of Taxpayer**

	Age Category	Observations	Number Paid EITC (Weighted)	Number Modeled Eligible (Weighted)	Participation Rate with Margin of Error
0 QC	<25	4	3,701	6,682	56% +/-72%
	25-34	469	724,386	1,271,700	57% +/-5%
	35-44	226	293,062	558,855	52% +/-8%
	45-54	304	413,169	728,210	57% +/-7%
	55+	253	303,808	559,033	54% +/-8%
1 QC	<25	431	698,733	881,840	79% +/-5%
	25-34	743	1,155,180	1,497,310	77% +/-4%
	35-44	694	952,075	1,317,210	72% +/-5%
	45-54	564	764,292	1,096,190	70% +/-5%
	55+	196	233,066	378,479	62% +/-10%
2+ QC	<25	310	556,954	670,469	83% +/-4%
	25-34	1,349	2,285,480	2,639,410	87% +/-4%
	35-44	1,288	2,021,810	2,310,750	88% +/-4%
	45-54	474	734,497	881,871	83% +/-4%
	55+	105	149,186	190,889	78% +/-4%
All Groups	<25	745	1,259,390	1,558,990	81% +/-6%
	25-34	2,561	4,165,040	5,408,420	77% +/-3%
	35-44	2,208	3,266,950	4,186,810	78% +/-3%
	45-54	1,342	1,911,960	2,706,270	71% +/-5%
	55+	554	686,061	1,128,400	61% +/-11%
	Total	7,410	11,289,400	14,988,890	75% +/-2%

Source: TY2005 IRS-CPS ASEC Exact Match

The Data Integration Division of the U.S. Census Bureau created unique geographic divisions of the United States to determine if there was a difference in EITC participation rates in different parts of the United States (Table 14). The definitions of the geographies follow:

- East Central=Ohio, Indiana, Illinois, Missouri, West Virginia, Kentucky, Tennessee, Arkansas
- East Coast=New York, New Jersey, Pennsylvania, Delaware, Maryland, District of Columbia, Virginia, North Carolina
- New England=Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut
- North Central=Michigan, Wisconsin, Minnesota, Iowa, North Dakota, South Dakota, Montana, Idaho
- Southeast=South Carolina, Georgia, Florida, Alabama, Mississippi, Louisiana
- Southwest=Nebraska, Kansas, Oklahoma, Texas, Colorado, New Mexico, Arizona, Utah
- West=California, Washington, Oregon, Idaho, Nevada, Alaska, Hawaii

The States were grouped in this fashion in order to create a division that contained the States from the Southeast region of the U.S. Previously defined Census Bureau divisions divide the States from the Southeast into three different divisions. The Southeast contains a large proportion of the EITC claimants, and the theory was that the Southeast might exceed other areas in participation.<sup>31</sup> The West lags the national participation rates in each of the three qualifying children groups, with the largest lag in the zero qualifying children segment (46 percent versus 56 percent nationally). Previous work by W&I Research has found the West to lag in participation. The same work found the South region (as defined by the Census Bureau) to have increased levels of participation, which was not found in this effort.<sup>32</sup>

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<sup>31</sup> The residents of these six States submit 19 percent of all EITC claims (and receive 21 percent of all EITC dollars), but the total number of tax returns from these States represents only 14 percent of all tax returns filed. About 17 percent of all tax returns report EITC. In these States, 23 percent of tax returns report an EITC claim. Mississippi has the highest percentage (32 percent) of tax returns reporting EITC.

<sup>32</sup> The South Region includes the South Atlantic, East South Central, and West South Central divisions.

**Table 14: Participation Rate, by Geographic Area**

Geographic Area	Observations	Number Paid EITC (Weighted)	Number Modeled Eligible (Weighted)	Participation Rate with Margin of Error
East Central	1,134	2,039,670	2,681,200	76% +/-3%
East Coast	1,148	2,070,180	2,719,100	76% +/-3%
New England	646	437,751	577,134	76% +/-7%
North Central	996	908,616	1,201,720	76% +/-4%
Southeast	875	1,792,560	2,391,510	75% +/-3%
Southwest	1,334	2,236,790	2,887,850	78% +/-3%
West	1,277	1,803,830	2,530,370	71% +/-3%
Total	7,410	11,289,400	14,988,890	75% +/-2%

Source: TY2005 IRS–CPS ASEC Exact Match

AGI and earned income are used to determine the amount of EITC each taxpayer is entitled to receive. The EITC amount is based on earned income when AGI is less than the income amount associated with the phaseout range of the program, which varies by number of qualifying children. The EITC amount is based on AGI and earned income when the AGI amount is in the phaseout range. A plot of earned income on the x-axis and the EITC benefit on the y-axis provides a graph that looks like a pyramid with a plateau at the top. As earned income increases from zero, the amount of the credit also increases, and that income range is termed the phase-in range (left side of the pyramid). At a certain income, the amount of EITC is constant (the maximum benefit range), even with increases in income (plateau area of the pyramid). Finally, further increases in income result in a decreased amount of EITC (phaseout range) until the income exceeds the maximum amount of income to qualify for EITC (right side of the pyramid). Table 15 provides the income ranges for each of the three income ranges, by the number of qualifying children.

**Table 15: Incomes Ranges for Phase-In, Maximum Benefit, and Phaseout Groups**

	Phase-In Income Range	Max Benefit Income Range*	Phase-Out Income Range*
0 QC	\$1–\$5,199	\$5,200–\$6,549	\$6,550–\$11,749
1 QC	\$1–\$7,799	\$7,800–\$14,399	\$14,400–\$31,029
2+ QC	\$1–\$11,049	\$11,050–\$14,399	\$14,400–\$35,262

\*For taxpayers who file as Married Filing Joint, the income ranges are increased by an additional \$2,000 in the max benefit and phaseout ranges.

Source: TY 2005 IRS Publication 596, Earned Income Credit

Table 16 provides participation estimates for taxpayers in the three income ranges (phase-in, maximum benefit, phaseout) related to EITC. Taxpayers in the phase-in income range show lower levels of participation when compared to taxpayers in the maximum benefit and phaseout income ranges. This finding is true for all qualifying children categories. There does not appear to be any significant difference in participation between the maximum benefit and phaseout income groups. Taxpayers in the phase-in group may not have a filing requirement, and given their low incomes, are likely to have had less income tax withheld and have less incentive to file a return to receive a refund of withholding—this is especially true of taxpayers with no qualifying children. This may explain why taxpayers with incomes in the phase-in range lag the other income groups in participation.

**Table 16: Participation Rate, by Benefits Phase**

	Benefits Phase	Observations	Number Paid EITC (Weighted)	Number Modeled Eligible (Weighted)	Participation Rate with Margin of Error
0 QC	Phase-In	573	662,280	1,426,270	46% +/-5%
	Max Benefit	135	218,605	342,863	64% +/-10%
	Phaseout	548	857,240	1,355,340	63% +/-5%
1 QC	Phase-In	528	706,802	1,047,710	68% +/-6%
	Max Benefit	472	745,863	947,226	79% +/-5%
	Phaseout	1,628	2,350,680	3,176,090	74% +/-3%
2+ QC	Phase-In	764	1,211,970	1,513,720	80% +/-4%
	Max Benefit	378	655,275	735,325	89% +/-4%
	Phaseout	2,384	3,880,670	4,444,340	87% +/-2%
All Groups	Phase-In	1,865	2,581,060	3,987,710	65% +/-3%
	Max Benefit	985	1,619,740	2,025,410	80% +/-3%
	Phaseout	4,560	7,088,590	8,975,770	79% +/-2%
	Total	7,410	11,289,400	14,988,890	75% +/-2%

Source: TY2005 IRS–CPS ASEC Exact Match

Table 17 provides a breakout of modeled AGI for tax units modeled as eligible who did not file a tax return. The vertical boxes contain the tax units who would not have a filing requirement based solely on their modeled AGIs.<sup>33</sup> The counts in the boxes are summed in the row “AGI below filing

<sup>33</sup> Filing requirements are based on gross income and not AGI. Gross income includes gross (rather than net) business income. The use of modeled AGI is a close approximation to gross income as it only contains one subtraction from income (one-half of self-employment tax). However, the modeled AGI includes net income, not gross income. About 11 percent of the eligible nonfilers had self-employment income. Income thresholds were obtained from the TY 2005 Form 1040 Instructions, page 12. The income threshold associated with taxpayers under age 65 was the income threshold used for the three filing statuses.

requirement” to give the total, estimated number of tax units by modeled filing status without a filing requirement. Roughly 60 percent of the nonfilers did not have a filing requirement, with about 1.2 million having less than \$8,000 in AGI. If the respondent had an AGI of less than \$8,000, it is understandable that the respondent did not file a tax return, given the respondent’s expected benefit of filing a return (small refund of withholding, if any) and costs associated with filing (paid preparer).

**Table 17: Modeled AGI Categories for Eligible Non-filers (Weighted Modeled Returns) [4]**

AGI Amount	Single	Head of Household	Married Filing Joint	Total
Negative	236	0	0	236
\$0	21,941	7,488	5,495	34,923
\$1–\$1,000	151,810	37,053	100,170	289,033
\$1,001–\$2,000	90,901	16,556	62,117	169,574
\$2,001–\$3,000	66,161	19,722	47,530	133,413
\$3,001–\$4,000	56,346	10,598	33,737	100,681
\$4,001–\$5,000	88,445	2,171	51,157	141,773
\$5,001–\$8,000	231,081	61,048	99,467	391,596
\$9,001–\$10,000	115,793	40,021	57,349	213,163
\$11,001–\$16,000	116,694	89,926	146,431	353,051
\$16,001+	0	304,580	267,340	571,920
AGI below filing requirement	684,744	187,169	597,958	1,469,871
Total	939,408	589,162	870,793	2,399,363

Source: TY 2005 IRS–CPS ASEC Exact Match

[4] Nonfilers with modeled AGI equal to or less than zero were not included in the group with no filing requirement because they reported negative income, which may be obscuring a filing requirement.

Table 18 reports the participation rates by major industry.<sup>34</sup> Taxpayers in the education/health services, financial activities, and wholesale/retail trade had higher levels of participation, while taxpayers in the construction and information industries had lower levels of participation. Unmarried females were the predominant group in each of the three highest participating industries (education/health at 77 percent, financial services at 65 percent, and wholesale trade at 57 percent). Unmarried females make up 51 percent of the 14.9 million taxpayers eligible for EITC.

<sup>34</sup> See Appendix A of the March 2006, ASEC technical documentation for industry coding details <<http://www.census.gov/apds/techdoc/cps/cpsmar06.pdf>>.

**Table 18: Participation Rate, by Industry**

Industry	Number Paid EITC (Weighted)	Number Modeled Eligible (Weighted)	Participation Rate
Agriculture, forestry, fishing, hunting	149,017	188,299	79%
Construction	574,630	915,435	63%
Manufacturing	933,604	1,169,684	80%
Wholesale and retail trade	1,557,299	1,917,801	81%
Transportation and utilities	368,115	461,236	80%
Information	102,778	162,026	63%
Financial activities	511,599	628,566	81%
Professional and business services	825,333	1,124,690	73%
Educational and health services	2,476,930	2,952,245	84%
Leisure and hospitality	1,176,963	1,524,511	77%
Other services	581,188	823,724	71%
Public administration	296,196	372,426	80%
Other	1,735,741	2,748,247	63%
Total	11,289,390	14,988,890	75%

Source: TY2005 IRS-CPS ASEC Exact Match

## Conclusions

Employing an Exact Match methodology that relies solely on information reported to the Census Bureau and that does not incorporate information from tax return filings underestimates the participation estimate because of income underreporting. Taxpayer filing behavior that cannot be anticipated prior to a comparison of tax return filings also causes the participation rate to be underestimated. The taxpayer participation rate that resulted after appropriate adjustments were made to the set of eligibles is in alignment with previous participation estimates produced by Scholz, GAO, and W&I Research. The characteristics of modeled eligible nonclaimants seem to confirm the validity of the methodology employed in this project as nonclaimants were generally nonfilers. And tax units modeled as EITC-eligible were more likely to claim the credit as the amount of the modeled credit increased.

The taxpayer participation rate appears to be relatively stable over time (the current estimate of participation for taxpayers with children is within the range Scholz estimated for TY 1990, and the national estimate is the same as GAO's estimate for TY 1999). Sustained substantial increases in the participation rate may be difficult to achieve if filing requirements remain

the same, and/or credit amounts are not increased to induce consistent filing by eligible nonfilers.<sup>35</sup>

Improving participation among taxpayers with smaller credit amounts and/or no filing requirement will be difficult. Taxpayers with no filing requirement who are unaware of their EITC eligibility may determine that the costs of filing a tax return outweigh the benefits of filing a tax return. Migrating low-income taxpayers to low-cost, return preparation options may improve participation rates.

Taxpayers with no qualifying children had lower rates of participation than taxpayers with qualifying children, but the majority of the nonclaimant population appeared to have at least one qualifying child. Viewing the nonclaimant population as primarily childless workers does not appear to be an accurate assessment of the population.

The participation rate estimate will likely change after the inclusion of several planned improvements to the methodology, scheduled to occur late in 2009 (described in the following section). It is anticipated that these improvements will produce a higher participation estimate. The planned improvements will also allow for a more accurate estimate of the total number of eligible taxpayers and eligible participants/nonparticipants.

## Limitations and Future Improvements

### Correctly Identifying Population Eligible To Receive EITC

The subsample identified as EITC-eligible from CPS ASEC excludes some individuals/families who are eligible for EITC and includes tax units who likely are not EITC-eligible. For an Exact Match methodology to be successful, the modeling must not misclassify a tax unit as ineligible when the tax unit actually is eligible to receive EITC. The misclassified tax units would generally fall into boxes 1.1.2 and 2.1.1 shown in Figure 3. Box 1.1.2 has been investigated, leaving only box 2.1.1 for future study.

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<sup>35</sup> TY 2007 saw a 1.6-million increase in the number of returns claiming EITC. Most of the increase in claims was due to the general increase in the total number of returns that resulted from the Economic Stimulus Program in TY 2007 that sent rebate checks to qualifying taxpayers. Taxpayers were induced to file for the stimulus payments and also qualified for EITC. (There was an increase of about 300,000 first-time EITC claimant taxpayers over earlier tax years.) It is too soon to know whether claims in TY 2008 drop back to TY 2006 levels.

**Income Discrepancies**

One of the key requirements for EITC eligibility is meeting the income requirements (having earned income greater than zero and having earned income and AGI both less than certain thresholds). When reporting income to the Census Bureau, it is possible that a respondent will provide rounded income to the Census Bureau (unless the respondent has tax return/income reporting documents in hand). In most situations, the rounding of income by a survey respondent is not a problem when attempting to determine eligibility (it does cause issues when trying to estimate the dollar amount). However, in cases where the taxpayer is very close to the EITC thresholds, rounding can cause significant issues. For example, suppose a married couple earns \$32,000 and has one qualifying child. When asked by the Census Bureau official how much they earned, they round up and report \$35,000 (an overstatement of less than 10 percent). The cutoff for a married couple with one qualifying child was \$33,030 in TY 2005, meaning that the couple was eligible for EITC but would not be classified as eligible because \$35,000 exceeds \$33,030.

CPS ASEC respondents reporting gross income to the Census Bureau and taxable income to the IRS have a similar impact on eligibility determination to rounding. Many workers contribute to retirement plans (401K/403B/TSP/SEP), enroll in employer-offered health insurance plans, and enroll in medical/dependent care flexible spending accounts. These payroll deductions are deducted from gross wages before withholding is applied, as taxable wages are equal to gross wages minus these deductions. If someone had \$35,000 in gross wages and accurately reported that income to the Census Bureau, but taxable wages were \$30,000 (as a result of health insurance deductions and tax-deferred investments), and he or she had one qualifying child, he or she would also be wrongly categorized as not eligible for EITC through appearing to have too much income.

Another source of misreporting arises when income is reported by another person in the household. When a Census Bureau employee obtains information about a household, the interviewer obtains the information from the reference person. In households with multiple families, the householder may not have complete knowledge of the earnings of other household members or may not feel comfortable sharing information about others in the



household. If the householder does not report income for his or her relatives or housemates, or is unable to provide accurate estimates of that income, then accurately determining EITC eligibility for these persons will be difficult and prone to error.

An obvious source of income mismatches results from reporting noncompliance. In these instances, the taxpayer underreports income to the IRS and/or overstates adjustments to income and self-employment expenses to generate a smaller tax liability. This misreporting could result in the taxpayer appearing eligible for EITC to the IRS, but the taxpayer would not have been modeled as eligible (assuming the taxpayer accurately reported income to the Census Bureau). In instances where the difference in income is large (for example, \$40,000 versus \$20,000), it may be easier for an outside party to assume the difference is a result of noncompliance (especially if the income source is self-employment), but, in instances where the difference is relatively small (for example, \$35,000 versus \$30,000), it is more difficult to make the assumption that the difference is noncompliance because of the possibilities previously discussed.

In future studies, the IRS will transmit an estimate for gross wages, in addition to taxable wages, to study the impact the different income concepts have on the eligibility determination. Analysts will correct for instances where the difference in income is a result of reporting gross wages to the Census Bureau. The Census Bureau will also explore the impact of self-reported versus proxy-reported income on accurately determining EITC eligibility (especially as it relates to taxpayers who show no earned income in the survey data but report wage income on their tax returns) and will provide recommendations on corrective action.

### **Inability To PIK all CPS ASEC Respondents**

This research assumes that all of the CPS ASEC respondents who do not have a PIK assigned are missing at random. This may be a valid assumption for respondents who are legal U.S. residents, but it clearly is not valid for U.S. residents who are not residing in the U.S. legally.

The IRS provides ITINs to noncitizens without SSNs (residing in the U.S. and abroad) to properly track their tax accounts. In future studies, the IRS will provide the Census Bureau with a population file of ITIN applicants residing in the U.S. so that the Census Bureau will be able to identify U.S. residents modeled as EITC-eligible who have an ITIN and remove them from the set of tax units modeled eligible for EITC. Variables included in the transmission would include name, address, country of birth, date of birth,

and gender. With these variables, the Census Bureau will assign unique link identifiers and use these cases in the analysis. The removal of this population from the set identified as eligible will not correct the whole issue of modeling U.S. residents without SSNs as eligible for EITC (because not all U.S. residents without an SSN apply for an ITIN), but it is a step in the right direction. The number of persons with an ITIN is estimated to be about 15 million (not all ITIN users reside in the U.S.).

Table 19 provides a summary of the limitations encountered by the Exact Match method and the projected impact of each limitation on the estimated participation rate. No actual percentages are reported in the table because the issues require research in future work. Once impacts on the participation rate are quantified, the participation rate will be modified accordingly. Most of these limitations are likely to cause the participation estimate to be understated.

**Table 19: Limitations to the Exact Match Methodology and Impact on Participation**

Limitation	Projected Impact on Participation Estimate
Income Discrepancies —Reporting Gross Income versus Taxable Income	Negative
Income Discrepancies —Third Party Income Reporting	Negative
Income Discrepancies —Reporting Noncompliance	Neutral
Inability to PIK All CPS ASEC Respondents —U.S. Residents without an SSN	Neutral
Inability to PIK All CPS ASEC Respondents —U.S. Residents with an SSN	Unknown
Modeling Ineligible Tax Units as Eligible for EITC —Inappropriate Assignment of QC to Tax Unit	Negative

**Income Discrepancies—Reporting Gross Income Versus Taxable Income**—The anticipated impact of this error on the participation estimate is negative because the error is likely to be focused on taxpayers near the upper income eligibility thresholds. These taxpayers would appear to be ineligible for EITC (based on CPS ASEC gross income data) but may actually be eligible for EITC when using taxable income. Taxpayers in this income range are more likely to file a tax return (due to filing requirements) and as result of filing receive the credit. This error will cause the number of eligible taxpayers to be underestimated.

**Income Discrepancies—Third Party Income Reporting**—Another way the number of EITC-eligible CPS ASEC respondents is understated results when respondents are not considered eligible for EITC because they have no reported earnings in the Census Bureau data. Some of these persons have IRS tax returns showing earned income. A cursory examination of these records indicates that household responses may have been provided by the reference person rather than the filer/earner. We will investigate whether income reporting accuracy is affected by household composition, specifically in the relationship of the earner to the reference person.

**Income Discrepancies—Reporting Noncompliance**—Taxpayers may underreport their incomes to the IRS (to avoid a tax liability and/or to increase EITC benefits). If taxpayers also underreported their incomes on the Census Bureau survey, then our computations of EITC would be unaffected. Other income discrepancies between the agencies need to be evaluated to determine any impacts on eligibility determination and the participation estimate.

**Inability To PIK All CPS ASEC Respondents—U.S. Residents without an SSN**—When eligibility is computed using the CPS ASEC person records, citizenship and legal work status are unknown. This could result in modeled EITC eligibility for persons who are unable to claim the credit because they do not have SSNs. This error is addressed in the PIK process, as persons who were never assigned an SSN by the Social Security Administration do not receive PIKs. Our EITC participation analysis includes only records with PIK, so that the persons without SSNs are excluded.

**Inability To PIK All CPS ASEC Respondents—U.S. Residents with an SSN**—Like U.S. residents who do not have an SSN, persons who do not pass the PVS process and obtain a PIK are not included in the participation rate analysis. The reasons why a person with an SSN would not receive a PIK will be evaluated in future research. It is unclear if excluding persons with SSNs biases the taxpayer participation rate.

**Modeling Ineligible Tax Units as Eligible for EITC—Inappropriate Assignment of Qualifying Children to Tax Unit**—This error has been corrected by clerical review in households where multiple families reside and the child or children were assigned to the wrong family (if the families filed tax returns reporting EITC and a reassignment was appropriate). The error has not been corrected for tax units where the child was not the qualifying child of any tax unit in the household (for example, a child who resided in the household for less than the required time and may have been a qualifying child of a tax unit in another household). Nonfiling tax units may appear to be eligible for EITC but would not have a legal claim credit. These cases

would be counted as eligible nonparticipants. Other combinations of apparent eligibility and unclear legal claims will be evaluated to document and describe any resultant bias.

## **Appendix A: Acknowledgements**

As with any project with the complexity, coordination, and magnitude that this project possessed, many people were integral to its success and completion.

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# The Pattern of EITC Claims Over Time: A Panel Data Analysis

*Deena Ackerman, Department of the Treasury;  
Janet Holtzblatt, Congressional Budget Office;  
and Karen Masken, Internal Revenue Service*

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The earned income tax credit (EITC) was enacted nearly 35 years ago. One goal of the EITC is to encourage people to work, while another is to lift families out of poverty. Yet little is known about the long-term effects of the credit on recipients due to data limitations.<sup>1</sup> This paper introduces a new data set that contains the tax records of over 60 million individuals who claimed or received the EITC between 2000 and 2006.<sup>2</sup> The panel follows those individuals over the 7-year period and should provide new insight into how people respond to the credit over time.

This paper is largely descriptive, laying the foundation for future research that could explore some of the long-term effects of the EITC. Using the new panel data set, we examine how the incidence and duration of EITC receipt change over time and the reasons for those changes—focusing particularly on the impact of changes in family structure and income over the period.

## Description of the EITC

The EITC is refundable, meaning that low-income individuals and families may receive the full amount of the credit even if they have little or no income tax liabilities. To be eligible for the EITC, a claimant must work during the tax year.

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<sup>1</sup> Findings from recent studies suggest that the EITC is very effective in meeting its goals of increasing labor force participation and reducing poverty (particularly for single mothers), but most studies rely on annual Current Population Surveys (CPSs) and difference-in-difference analysis to isolate the effects of changes in the EITC over time (Eissa and Liebman, 1996; Meyer and Rosenbaum, 2001; Grogger, 2003). A recent study by Dahl et al. (2009) matched several panels of the Survey of Income and Program Participation (SIPP) with administrative earnings records from the Social Security Administration to show that the expansion of the EITC for taxpayers with two or more qualifying children in the mid-1990s not only increased employment of single mothers, but also contributed to earnings growth over time. However, that study—as with the earlier cross-sectional studies that solely used Census data—does not contain tax return information indicating whether the person actually received the EITC and must infer the benefits of the credit from imputations of eligibility. A second study by Dowd and Horowitz (2008) used a panel of tax returns to follow EITC claimants over time. They find that about half of filers with children received the EITC over a period of nearly 2 decades, but this number may be an underestimate because their sample did not follow both spouses when married filers divorced or separated over the span of the panel.

<sup>2</sup> An earlier version of this data set was described in Masken (2006).

The amount of the credit initially increases with earnings, reaches a maximum amount, and then phases out gradually as income (the greater of earned income or adjusted gross income) rises.

Eligibility for the EITC was initially limited to filers who resided with qualifying children, and the amount of the credit did not vary with the number of children in the household. Those restrictions were lifted in the early 1990s. Since 1991, families with two or more children have been allowed a somewhat larger EITC, and, beginning in 1994, very low-wage workers who do not reside with any qualifying children have been eligible for a small credit.<sup>3</sup>

Table 1 shows the EITC parameters for 2000 and 2006—the first and last years of the panel data set. Consider, for example, how the credit was

**Table 1: EITC Parameters for Tax Year 2000 and 2006  
by Filing Status and Number of Qualifying Children**

EITC Parameters	Tax Year 2000		
	No Qualifying Children	One Qualifying Child	Two Qualifying Children
Credit percentage	7.65%	34.00%	40.00%
Phaseout percentage	7.65%	15.98%	21.06%
Maximum credit	\$353	\$2,353	\$3,888
Income at which begin maximum credit	\$4,610	\$6,920	\$9,720
Income at which credit begins to phase out [1]	\$5,770	\$12,690	\$12,690
Income at which credit completely phased-out [1]	\$10,380	\$27,413	\$31,152
EITC Parameters	Tax Year 2006		
	No Qualifying Children	One Qualifying Child	Two Qualifying Children
Credit percentage	7.65%	34.00%	40.00%
Phaseout percentage	7.65%	15.98%	21.06%
Maximum credit	\$412	\$2,747	\$4,536
Income at which begin maximum credit	\$5,380	\$8,080	\$11,340
Income at which credit begins to phase out [1]	\$6,740	\$14,810	\$14,810
Income at which credit completely phased-out [1]	\$12,120	\$32,001	\$36,348

[1] Beginning in 2002, the income at which the credit begins to phase out (and hence, is completely phased out) was increased for married taxpayers. In 2006, the amount of this increase was \$2,000.

<sup>3</sup> For 2009 and 2010, a new schedule was added, increasing the EITC for workers with three or more qualifying children.

calculated for a worker with one child in 2000. At very low-income levels, the EITC increased by 34 cents for each dollar of earned income, up to a maximum credit of \$2,353 when earnings reached \$6,920. The credit remained at this maximum amount as earnings continued to rise. The EITC was then reduced by 16 cents for each additional dollar of earnings or adjusted gross income (whichever was greater) in excess of \$12,690. Filers were no longer entitled to any credit when their incomes exceeded \$27,413. In 2006, the credit parameters were the same as in 2000, and, because the credit income thresholds are indexed for inflation, the amounts shown for 2006 are the same (in real dollars) as those shown for 2000.

As Table 1 suggests, the panel period—2000 through 2006—was one of relative stability for the EITC. During the prior 2 decades, the EITC parameters had been increased substantially, and eligibility for the credit was expanded to new populations, including workers who do not reside with children. In contrast, the EITC parameters were (with one exception for married filers, described below) unchanged during the panel period.

Nonetheless, there were some changes to EITC eligibility rules during this period, largely as a result of marriage penalty relief and simplification provisions included in the Economic Growth and Tax Relief Reconciliation Act of 2001 (EGTRRA).

- Marriage penalty relief extended the beginning and endpoints of the phaseout range for married couples filing jointly by \$1,000 in 2002 and then again by an additional \$1,000 in 2005.
- EGTRRA simplified the rules for determining who would receive the EITC when more than one taxpayer could claim the same qualifying child. Previously, if more than one person qualified to claim a child, then the EITC was awarded to the person who had the highest adjusted gross income. This provision was difficult to administer, because the IRS could not easily observe that more than one person was qualified to claim a child if only one person actually declared that child on his or her tax return. As a result of EGTRRA, tie breaker rules only apply when more than one taxpayer actually claims the same child.<sup>4</sup>

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<sup>4</sup> Under both prior and current law, a taxpayer can claim a qualifying child for the EITC if the child meets certain residency, relationship, and age tests. Those tests, however, sometimes result in more than one taxpayer being eligible to claim the same child. For example, both a mother and her daughter are eligible to claim the daughter's baby if all three live together for over half the year. Previously, the EITC could be claimed only by the woman with the higher adjusted gross income. As a result of EGTRRA, the tie breaker test only applies if both women actually claim the EITC—and the winner would be the child's mother, regardless of her AGI. If, instead, the household consists of a child and the child's grandmother and aunt, then the tie breaker is AGI, with the credit going to the woman with the higher AGI—but, unlike pre-2002 law, the tie breaker would only apply if both women actually claim the child on their tax returns.

- The definitions of adjusted gross income and earned income were also simplified by EGTRRA. Beginning in 2002, taxpayers no longer include nontaxable forms of earned income when computing the EITC, and various modifications to adjusted gross income—solely for purpose of calculating the EITC—were dropped.

While the marriage penalty relief provision unambiguously extended eligibility to more married couples, the impact of the two simplification provisions on claiming behavior is less clear. Those provisions were motivated, in part, by concern that EITC claimants did not understand prior law, resulting in unintentional errors. Simplification of the tie breaker rules and definitions of income, therefore, may have legitimized EITC claims by some filers. Those changes also made some individuals eligible for the credit who had previously not claimed it—and conversely made others ineligible who had. For example, changing the tie breaker test could have shifted eligibility for the credit from one member of a family to another.

During this period, other changes occurred that affected all taxpayers, including EITC recipients. First, EGTRRA created a new 10-percent tax rate bracket and expanded eligibility for the refundable child tax credit to include low-income workers with at least \$10,000 of income. Those two provisions, in combination, effectively reduced marginal tax rates for EITC claimants with children in the credit's phaseout range. Second, the definition of qualifying child for various child-related tax benefits (including the dependent exemption and child tax credit) was made more uniform in 2004. The 2004 legislation generally conforms the definition of a qualifying child for other tax benefits to the definition used for the EITC, making it more likely that a person who claimed a child for the EITC also claimed that same child for other tax benefits.<sup>5</sup>

## **EITC Panel Data**

The EITC panel data are derived from tax returns stored in the IRS's Compliance Data Warehouse. There are several advantages to using these administrative data for the population. First, doing so allows for a longitudinal file

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<sup>5</sup> Although the focus of the 2004 legislation was primarily on other child-related tax benefits, it did change EITC eligibility in two ways. First, it denied the EITC to certain individuals who previously had been able to claim their siblings as qualifying children. Under the 2004 law, those individuals would no longer be able to claim the credit if they were under 19 or 24 if a full-time student. That provision was largely repealed in the Fostering Success and Increasing Adoptions Act of 2008. Second, simplifying the tie breaker rules for all child-related tax benefits—while at the same time requiring only one taxpayer to claim a given child—made it easier for families to game and allocate children among family members so as to maximize tax benefits received by the household. The 2008 act made it more difficult for such gaming to occur.



to be built retrospectively. Also, since this file is not based on a sample, it is not dependent on any underlying sample design. This is particularly important when there are changes in tax law—as there were between 2000 and 2006—since a sample may not adequately capture or reflect responses to tax law changes. Finally, it allows for individuals—rather than the return filing unit—to be followed. The ability to follow both the primary and secondary taxpayers alleviates several issues encountered with sample panel data in which only the primary taxpayer is followed. Following only the primary taxpayer can lead to false attrition rates when the couple stops filing a joint return and the secondary taxpayer continues to claim the EITC while the primary taxpayer does not. In this instance, sample data would not capture the behavior of the secondary taxpayer. This also leads to gender bias over time since the secondary taxpayer is typically female. Using the population data makes it possible to capture changes in the composition of the household and follow all members of the household.

Tax returns were selected from Tax Years 2000 through 2006.<sup>6</sup> Returns were included if the taxpayers claimed the EITC on their original returns or if the credit were allowed in processing or examination. The data also include the returns of individuals who did not claim the EITC but received notices from the IRS informing them of their potential eligibility. In total, 62 million taxpayers are included in the panel, including 1.2 million taxpayers who died between 2000 and 2006. For purposes of this paper, we limit the analysis to people who were alive throughout the panel. Our analysis focuses on individuals who were allowed the EITC during processing, bringing our total population down to 57 million.

While the panel is rich, the size of the population file makes it unwieldy to use for analysis. Therefore, for our analysis, we took a simple random sample of 1 percent of the individuals in the population file. All individuals were equally likely to be chosen in the random sample. Thus, each individual has a weight of 100.

In both the population and sample panel files, tax return data are augmented with information from each individual's Form W-2 and Schedule SE. In addition, the panel file also contains some information regarding certain IRS enforcement actions, including indicators showing whether an individual received notification of a mathematical or clerical error that might have increased, reduced, or eliminated the EITC in processing. The file also contains

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<sup>6</sup> An advantage of the panel is that we are able to include returns that were filed 2 or 3 years after the end of the tax year. Consider a taxpayer who files a return for Tax Year 2000 in 2002 or 2003. That return is included in our population.

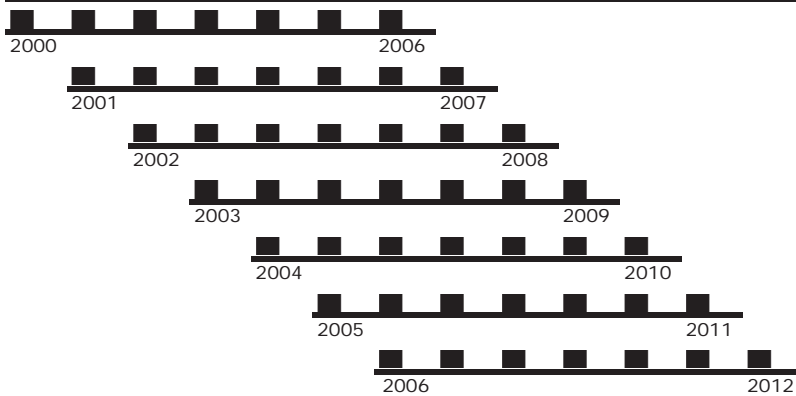
information on whether the return was the focus of an IRS examination and, if so, the results of that audit.

A virtue of the data is that it allows a longer-term perspective on EITC reciprocity than the typical 1-year snapshot provides. That virtue allows us, in the next section, to contrast the characteristics of EITC recipients in 2000 with those who receive the credit at any point between 2000 and 2006.

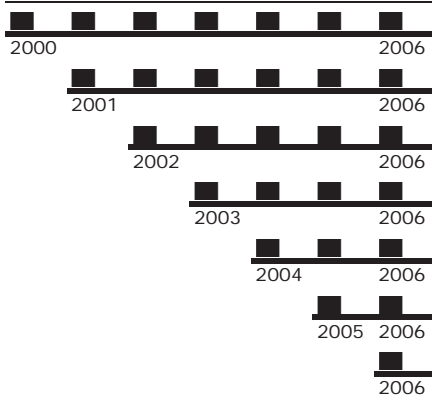
**Figure 1: The Difference between Recipient Behavior and Observation in a 7-Year Panel**

If Everyone Receives EITC For 7 Consecutive Years

Actual Patterns of Receipt



What We Observe

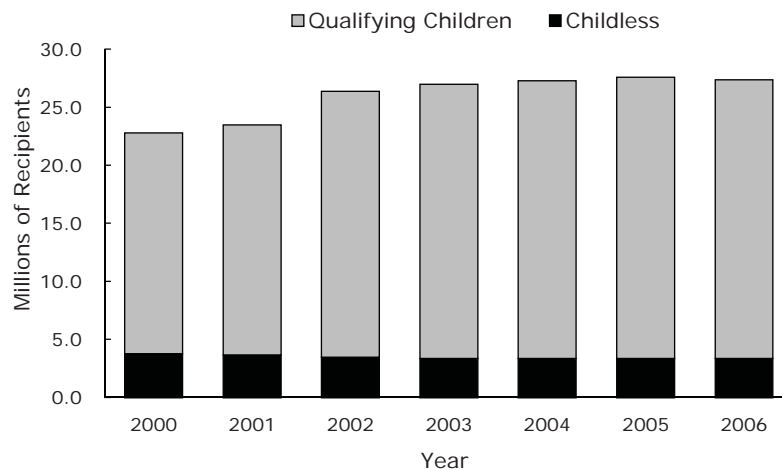


A limitation of the data is that the file does not contain the full history of EITC claims for those who received the credit at some point throughout the panel. The panel effectively censors receipt of the EITC for years before 2000 and after 2006. For example, consider if everyone in the panel received the EITC for 7 consecutive years—but people began receiving the credit in different years. As Figure 1 demonstrates, only those who began receiving the credit in 2000 would be identified as receiving the credit for all 7 years. The remaining individuals would appear to receive the credit for fewer years.

The number of EITC participants changes little from year to year, as shown in Figure 2. In 2000—at the beginning of the panel—about 23 million people received the EITC. By the end of the period, the number of recipients had increased by 17 percent to 27 million. Most of that growth was attributed to a spurt in EITC participation in 2002, following both a recession and the enactment of the EGTRRA marriage penalty relief and simplification provisions described above. After 2002, the number of EITC participants increased by about 1 percent a year—and nearly all that growth was attributable to growth in the number of recipients with qualifying children.

A snapshot of EITC participants taken in 2000 reveals that 84 percent had qualifying children and nearly half filed as heads of households (generally meaning that they were unmarried and had a child or other dependent

**Figure 2: Number of Individual EITC Recipients 2000-2006**



**Table 2: Basic Demographic Characteristics of Individual EITC Recipients in Panel**

Characteristics of Individual in First Year EITC Received	TY 2000 Cross Section	Received EITC at Some Point in Panel Period (universe)
Total Number of Individuals (thousands)	22,816	57,061
Average Age of Recipient	36	36
Average Number of Years EITC Received	4.5	3.2
Average Number of Years Tax Return Filed	6.1	5.8
Percent Female	62%	55%
<b>Filing Status</b>		
Single	17%	26%
Female	8%	11%
Head of Household	47%	37%
Female	36%	25%
Married Filing Jointly	36%	38%
<b>Number of Qualifying Children in First Year</b>		
0	16%	26%
1	38%	39%
2	46%	34%
<b>Ages of Children In First Qualifying Year (Among those with Children)</b>		
Average age of oldest child	11.6	9.7
Percent with oldest child under 2	9%	18%
<b>Number of Dependents</b>		
0	17%	27%
1	36%	37%
2	33%	26%
3	10%	8%
4 or more	4%	3%

living with them). Tables 2 and 3 summarize key demographic and income characteristics of the participating population. EITC participants, on average, were 36 years old, and their oldest child (if they had any) was nearly 12. Among filers with EITC qualifying children, 9 percent had an oldest child who was under the age of 2. Over 60 percent of EITC recipients were female. On average, EITC recipients (and their spouses, if married) reported nearly \$17,000 in adjusted gross income, and most EITC recipients were wage earners rather than self-employed. Among wage earners, the average

**Table 3: Income Characteristics of Individual EITC Recipients in Panel**

[Income in Constant 2006 dollars]

Average Positive Income in First Year EITC Received	TY 2000 Cross Section	Received EITC at Some Point in Panel Period (universe)
<b>Return Level Income Characteristics</b>		
Adjusted Gross Income (Return Level)	16,670	15,890
Earned Income (Return Level)	16,300	15,290
<b>Individual Level Income Characteristics</b>		
Average Wage Income (among those with wage income)	14,470	13,580
Average Self-Employment Income [1] (among those with SE income)	8,640	7,990
Individuals with Wage Income (thousands)	18,289	45,255
Individuals with Self-Employment Income	3,013	7,673
Total Number of Individuals (thousands)	22,816	57,061

[1] This table includes self-employment income as reported on Schedule SE. Thus, taxpayers with net self-employment income under \$400 are omitted from the calculations.

**Table 4: Receipt Patterns of Individual EITC Recipients in Panel**

Pattern of EITC Receipt	Total (thousands)	Percent of All Recipients
Received EITC at least once in Panel Period (Total Recipients)	57,061	100%
Once	17,183	30%
<b>Consecutive</b>		
Two or Three Years	11,760	21%
Four to Six Years	8,749	15%
All Years	6,523	11%
<b>Sporadic (Receipt was not in Consecutive Years)</b>		
Two or Three Years Total	6,136	11%
Four to Six Years Total	6,711	12%

wage (per worker) was \$14,470. In contrast, those with self-employment earnings reported, on average, \$8,640 from those activities.<sup>7</sup>

Yet a snapshot misses significant turnover within the EITC recipient population. Table 4 looks at patterns of EITC receipt over the panel

<sup>7</sup> Adjusted gross income and aggregate earned income are measured at the return level. Wage and self-employment income is measured at the individual level from Form W-2 and Schedule SE, respectively. Because we are using Schedule SE, the first \$400 of net self-employment income (which is not taxable for Social Security purposes) are omitted from these tabulations.

**Table 5: Demographic Characteristics of Individual EITC Recipients in Panel by Pattern of Receipt**

Characteristics of Individual in First Year EITC Received	Received EITC Once	Received EITC In Consecutive Years During Panel Period [1]		
		2-3 Years	4-6 Years	All Years
Total Number of Individuals (thousands)	17,183	11,760	8,749	6,523
Average Age of Recipient	38	36	35	35
Average Number of Years EITC Received	1.0	2.4	4.9	7.0
Average Number of Years Tax Return Filed	5.1	5.4	6.3	7.0
Percent Female	47%	53%	62%	73%
<b>Filing Status</b>				
Single	37%	26%	16%	8%
Female	15%	12%	9%	6%
Head of Household	25%	35%	44%	57%
Female	14%	22%	33%	49%
Married Filing Jointly	38%	39%	40%	34%
<b>Number of Qualifying Children in First Year</b>				
0	43%	26%	13%	5%
1	34%	44%	46%	36%
2	23%	30%	41%	58%
<b>Ages of Children In First Qualifying Year (Among those with Children)</b>				
Average age of oldest child	11.3	8.9	8.6	9.4
Percent with oldest child under 2	21%	24%	21%	8%
<b>Number of Dependents</b>				
0	43%	13%	14%	6%
1	32%	41%	44%	34%
2	18%	23%	30%	42%
3	5%	7%	9%	12%
4 or more	2%	2%	4%	5%

Footnotes at end of table.

period. While 22.8 million people got the EITC in 2000, 57.1 million received the credit at least once over the entire 7-year period, including 17.2 million people (30 percent) who were paid the credit for just 1 year during the span of the panel.<sup>8</sup> In contrast, only 6.5 million individuals (11 percent) collected the EITC for all 7 years. On average, individuals in the panel received the EITC for 3 years. While most people received the EITC

<sup>8</sup> Throughout the paper, we will sometimes refer to these individuals as one-time recipients. It is, of course, possible that some of these individuals received the EITC more than once—but at a time outside the span of the 7-year panel.

**Table 5: Demographic Characteristics of Individual EITC Recipients in Panel by Pattern of Receipt—Continued**

Characteristics of Individual in First Year EITC Received	Received EITC Sporadically During Panel Period [1] (Total Years)	
	2-3 Years	4-6 Years
Total Number of Individuals (thousands)	6,136	6,711
Average Age of Recipient	36	35
Average Number of Years EITC Received	2.5	4.9
Average Number of Years Tax Return Filed	5.6	6.3
Percent Female	49%	60%
<b>Filing Status</b>		
Single	32%	19%
Female	12%	9%
Head of Household	32%	44%
Female	19%	31%
Married Filing Jointly	37%	37%
<b>Number of Qualifying Children in First Year</b>		
0	33%	17%
1	37%	41%
2	30%	42%
<b>Ages of Children in First Qualifying Year (Among those with Children)</b>		
Average age of oldest child	9.9	10.0
Percent with oldest child under 2	18%	14%
<b>Number of Dependents</b>		
0	33%	18%
1	35%	38%
2	22%	31%
3	7%	10%
4 or more	3%	4%

[1] These categories are mutually exclusive. Thus, the category of individuals who "received the EITC in 2 or 3 consecutive years" excludes any taxpayers who received the EITC for 2 or 3 consecutive years and then again at some point thereafter. Such taxpayers would be classified in the "sporadic" category.

in spans of consecutive years, over 12.8 million (23 percent) floated in and out of the EITC population—being paid the credit on and off throughout the panel period.

### Demographic Characteristics

A comparison of Table 2 with Table 5 illustrates that there are marked differences among EITC recipients that are associated with the pattern of receipt.

Those who received the EITC only once over the span of the panel were somewhat older (38, on average). They were also more likely to be male, single, and have no qualifying children or other dependents.

In contrast, long-term EITC recipients were more likely to be single mothers. Nearly three-quarters of those who received the EITC for 7 consecutive years were female, and nearly 60 percent filed as heads of households. Long-term recipients were also more likely to have more than one child—58 percent of those who claimed the EITC every year during the panel had at least two children. In the first year they received the EITC (2000 for this group), they were, on average, aged 35 and thus slightly younger during the first year of receipt than those who received the credit for 3 or fewer years, and their oldest child was typically older than those who received the credit for 2 to 6 consecutive years.

These images, however, are not typical. In a given year, the sample is dominated by EITC recipients who were paid the credit during most but not all years. Thus, the 1-year snapshot looks most like the EITC recipients who were awarded the credit for 4 to 6 years. A somewhat different perspective is provided by looking at the characteristics of EITC recipients over the entire panel. Because the majority of EITC participants over the course of the panel received the credit for only 1 to 3 years, the profile of the panel looks more like those individuals: slightly over half were female, one in four had no children, and only about one-third filed as heads of households.

We also compare individuals who receive the EITC over consecutive years to those who pop in and out of the EITC population. Among those who claimed the credit for a total of 2 or 3 years, the key difference is that those who received the EITC sporadically were more likely to be single and childless. This distinction is also true, though to a lesser degree, among those who received the credit for more years.

### **Income**

The magnitude and source of income also vary with the pattern of EITC receipt over the span of the panel. Those who claimed the EITC only once reported lower adjusted gross income—and lower earnings—than those who received the credit for multiple years. Generally, average adjusted gross income and earnings in the first year of receipt increased with the number of years of receipt of the EITC. Thus, the average income and earnings of one-time recipients (and their spouses, if married) were,



**Table 6: Income Characteristics of Individual EITC Recipients in Panel**

[Income in Constant 2006 dollars]

Average Positive Income in First Year EITC Received	Received EITC Once	Received EITC In Consecutive Years During Panel Period [1] (Years Received)		
		2-3	4-6	All Years
Return Level Income Characteristics				
Adjusted Gross Income (Return Level)	15,090	15,780	16,660	16,460
Earned Income (Return Level)	14,350	15,120	16,110	16,190
Individual Level Income Characteristics				
Average Wage Income (among those with wage income)	13,000	13,480	14,150	14,550
Average Self-Employment Income [2] (among those with SE income)	7,420	7,800	8,350	8,740
Individuals with Wage Income (thousands)	13,550	9,212	6,881	5,309
Individuals with Self-Employment Income (thousands)	2,315	1,656	1,206	792
Total Number of Individuals (thousands)	17,021	11,752	8,748	6,523

Footnotes at end of table.

respectively, \$15,090 and \$14,350—compared to \$16,460 and \$16,190 for long-term participants (see Table 6). We also observe the same pattern when we look at the individual's share of earnings in the first year he or she received the EITC.

That result, however, is likely driven by the underlying family characteristics of the EITC population. As Table 5 demonstrated, one-time users of the credit were more likely to be childless individuals—and to be eligible for the EITC, childless individuals must have very low incomes. Thus, turning to Tables 7A and 7B, we observe—as we would expect—that the average adjusted gross incomes and earnings for those without children were substantially lower than for those with children.

When we distinguish EITC recipients by family characteristics, we observe that average incomes in the first year of receipt, in fact, decline

**Table 6: Income Characteristics of Individual EITC Recipients in Panel—Continued**

[Income in Constant 2006 dollars]

Average Positive Income in First Year EITC Received	Received EITC Sporadically During Panel Period [1] (Total Years)	
	2-3	4-6
<b>Return Level Income Characteristics</b>		
Adjusted Gross Income (Return Level)	15,840	16,560
Earned Income (Return Level)	15,210	16,130
<b>Individual Level Income Characteristics</b>		
Average Wage Income (among those with wage income)	13,280	13,790
Average Self-Employment Income [2] (among those with SE income)	8,140	8,550
Individuals with Wage Income (thousands)	4,898	5,404
Individuals with Self-Employment Income (thousands)	834	871
Total Number of Individuals (thousands)	6,136	6,711

[1] These categories are mutually exclusive. Thus, the category of individuals who "received the EITC in 2 or 3 consecutive years" excludes any taxpayers who received the EITC for 2 or 3 consecutive years and then again at some point thereafter. Such taxpayers would be classified in the "sporadic" category.

with the number of years of receipt. For example, a married couple with qualifying children had, on average, \$24,780 of adjusted gross income in the year they received the EITC if they claimed the credit only once during the span of the panel, but a couple who received the credit for all 7 years had an average of \$19,220 in the first year of receipt. The same pattern applies, to somewhat lesser degrees, to heads of households with children and single filers. We also observe similar patterns when we look at total earned income reported on the return, as well as at each individual's share of wage income.

Another interesting observation is that people who receive the EITC sporadically tend to have slightly higher income in the first year of receipt than their counterparts who receive the credit for the same number of years

**Table 7A: Income Characteristics of the Tax Returns  
of Individual EITC Recipients in Panel by Filing Status**

[Income in Constant 2006 Dollars]

Average Income in First Year EITC Received	TY 2000 Cross Section	Received EITC at Some Point in Panel Period (universe)	Receive EITC Once
Adjusted Gross Income Attributable to Tax Return			
Single, Childless	6,560	6,750	6,910
Single, Qualifying Children	11,740	11,660	12,600
Head of Household, Childless	11,480	9,640	8,730
Head of Household, Qualifying Children	17,240	16,890	17,900
Married Filing Jointly, Childless	8,690	8,260	8,250
Married Filing Jointly, Qualifying Children	21,190	22,550	24,780
Earned Income Attributable to Tax Return			
Single, Childless	6,380	6,490	6,600
Single, Qualifying Children	11,510	11,380	12,230
Head of Household, Childless	11,220	9,120	7,960
Head of Household, Qualifying Children	16,890	16,410	17,240
Married Filing Jointly, Childless	8,200	7,360	7,110
Married Filing Jointly, Qualifying Children	20,730	21,700	23,700
Average Income in First Year EITC Received	Received EITC In Consecutive Periods During Panel Period [1]		
	2-3 Years	4-6 Years	All Years
Adjusted Gross Income Attributable to Tax Return			
Single, Childless	6,530	6,440	6,130
Single, Qualifying Children	11,690	11,280	11,310
Head of Household, Childless	9,490	10,540	11,180
Head of Household, Qualifying Children	16,910	16,490	16,140
Married Filing Jointly, Childless	8,050	8,190	9,730
Married Filing Jointly, Qualifying Children	22,290	21,100	19,220
Earned Income Attributable to Tax Return			
Single, Childless	6,310	6,270	6,100
Single, Qualifying Children	11,430	11,040	11,140
Head of Household, Childless	9,020	10,160	10,970
Head of Household, Qualifying Children	16,360	16,040	15,870
Married Filing Jointly, Childless	7,210	7,800	9,580
Married Filing Jointly, Qualifying Children	21,290	20,280	18,910

Footnotes at end of table.

**Table 7A: Income Characteristics of the Tax Returns of Individual EITC Recipients in Panel by Filing Status—Continued**

[Income in Constant 2006 Dollars]

Average Income in First Year EITC Received	Received EITC Sporadically During Sample Period [1] (Total Years)	
	2-3 Years	4-6 Years
<b>Adjusted Gross Income Attributable to Tax Return</b>		
Single, Childless	6,860	6,610
Single, Qualifying Children	11,150	10,830
Head of Household, Childless	9,750	10,120
Head of Household, Qualifying Children	17,470	16,530
Married Filing Jointly, Childless	8,110	8,770
Married Filing Jointly, Qualifying Children	24,250	22,110
<b>Earned Income Attributable to Tax Return</b>		
Single, Childless	6,590	6,440
Single, Qualifying Children	10,860	10,630
Head of Household, Childless	9,230	9,800
Head of Household, Qualifying Children	16,900	16,160
Married Filing Jointly, Childless	7,490	8,380
Married Filing Jointly, Qualifying Children	23,300	21,480

[1] These categories are mutually exclusive. Thus, the category of individuals who have "received the EITC in 2 or 3 consecutive years" excludes any taxpayers who received the EITC for 2 or 3 consecutive years and then again at some point thereafter. Such taxpayers would be classified as "sporadic."

but without any breaks in participation. For example, a married couple with qualifying children who received the EITC for 2 to 3 consecutive years had, on average, \$22,290 in adjusted gross income during the first year of receipt—while those who received the credit on and off for 2 to 3 years had \$24,250 in the first year of receipt.

## Dynamics of EITC Participation

Of the nearly 23 million people who received the EITC in 2000, more than half were no longer receiving the credit 6 years later. In this section, we consider the reasons why people who received the EITC in 2000 were no longer receiving the credit in 2006. The reasons for these findings reflect both ups and downs in their financial circumstances, as well as changes in their family structures.

**Table 7B: Income Characteristics of Individual EITC Recipients in Panel by Filing Status**

[Income in Constant 2006 Dollars]

Average Income in First Year EITC Received	TY 2000 Cross Section	Received EITC at Some Point in Panel Period (universe)	Receive EITC Once
<b>Average Own Wage Income (Among those with Wage Income Greater than Zero)</b>			
Single, Childless	6,530	7,020	7,330
Single, Qualifying Children	11,570	11,520	12,290
Head of Household, Childless	11,240	9,520	8,750
Head of Household, Qualifying Children	17,090	16,760	17,860
Married Filing Jointly, Childless (per W-2)	6,510	7,160	7,540
Married Filing Jointly, Qualifying Children (per W-2)	13,990	15,210	17,380
<b>Average Own Self-Employment Income (Among those with Self Employment Income Greater than Zero)[2]</b>			
Single, Childless	5,340	5,040	4,920
Single, Qualifying Children	7,560	7,470	7,620
Head of Household, Childless	8,610	7,580	6,480
Head of Household, Qualifying Children	8,860	8,750	9,020
Married Filing Jointly, Childless	6,340	5,390	5,060
Married Filing Jointly, Qualifying Children	10,450	10,290	10,380
<hr/>			
Average Income in First Year EITC Received	Received EITC In Consecutive Periods During Panel Period [1]		
	2-3 Years	4-6 Years	All Years
<b>Average Own Wage Income (Among those with Wage Income Greater than Zero)</b>			
Single, Childless	6,640	6,480	6,000
Single, Qualifying Children	11,850	11,070	11,150
Head of Household, Childless	9,380	10,700	10,590
Head of Household, Qualifying Children	16,710	16,390	16,000
Married Filing Jointly, Childless (per W-2)	6,450	6,500	7,170
Married Filing Jointly, Qualifying Children (per W-2)	15,320	13,820	12,780
<b>Average Own Self-Employment Income (Among those with Self Employment Income Greater than Zero)[2]</b>			
Single, Childless	4,980	5,100	5,320
Single, Qualifying Children	7,650	6,890	7,260
Head of Household, Childless	7,610	7,970	8,300
Head of Household, Qualifying Children	8,790	8,620	8,210
Married Filing Jointly, Childless	5,240	5,740	7,560
Married Filing Jointly, Qualifying Children	9,960	10,060	10,060

Footnotes at end of table.

**Table 7B: Income Characteristics of Individual EITC Recipients in Panel by Filing Status—Continued**

[Income in Constant 2006 Dollars]

Average Income in First Year EITC Received	Received EITC Sporadically During Sample Period [1] (Total Years)	
	2-3 Years	4-6 Years
<b>Average Own Wage Income (Among those with Wage Income Greater than Zero)</b>		
Single, Childless	7,020	6,700
Single, Qualifying Children	10,940	10,710
Head of Household, Childless	9,620	10,030
Head of Household, Qualifying Children	17,420	16,360
Married Filing Jointly, Childless (per W-2)	7,170	6,800
Married Filing Jointly, Qualifying Children (per W-2)	15,930	13,700
<b>Average Own Self-Employment Income (Among those with Self Employment Income Greater than Zero)[2]</b>		
Single, childless	5,210	5,330
Single, Qualifying Children	7,710	7,520
Head of Household, Childless	7,750	8,380
Head of Household, Qualifying Children	9,310	8,660
Married Filing Jointly, Childless	5,470	5,930
Married Filing Jointly, Qualifying Children	10,990	10,650

[1] These categories are mutually exclusive. Thus, the category of taxpayers who have "received the EITC in 2 or 3 consecutive years" excludes any taxpayers who received the EITC for 2 or 3 consecutive years and then again at some point thereafter. Such taxpayers would be classified in the "sporadic" category.

### Changes in Family Structure and Income

We first consider how people's family and income characteristics changed over the course of the panel, and how those changes were associated with their patterns of EITC receipt over the span of the panel.

One benchmark is the characteristics of people who received the credit every year between 2000 and 2006. Among people who received the EITC in every year of the panel, we observe signs of both stability and expansion among their families. 84 percent of married couples who filed jointly and 87 percent of unmarried people who filed as heads of households in 2000 reported the same filing status in 2006 (see Table 8). Over half still appeared to have the same

**Table 8: Characteristics of Individuals Who Received the EITC in 2000: Filing Status in 2000 and in 2006 by Intensity of Participation**

Filing Status in 2000	Filing Status in 2006		
	MFJ [1]	HOH	Single
Received the EITC in 2000 Only			
MFJ [1]	60%	2%	5%
HOH	26%	16%	17%
Single	19%	2%	29%
<b>All Filers</b>	<b>36%</b>	<b>7%</b>	<b>17%</b>
Received the EITC in 2 or 3 Consecutive Years Including 2000			
MFJ [1]	56%	2%	5%
HOH	25%	16%	17%
Single	16%	3%	27%
<b>All Filers</b>	<b>34%</b>	<b>9%</b>	<b>15%</b>
Received the EITC in 4, 5 or 6 Consecutive Years Including 2000			
MFJ [1]	61%	3%	4%
HOH	20%	25%	17%
Single	15%	7%	31%
<b>All Filers</b>	<b>35%</b>	<b>15%</b>	<b>14%</b>
Received the EITC in All Years from 2000 through 2006			
MFJ [1]	84%	14%	2%
HOH	7%	87%	6%
Single	10%	51%	39%
<b>All Filers</b>	<b>34%</b>	<b>59%</b>	<b>7%</b>
Received the EITC in 2000 and Sporadically 1 or 2 Additional Years			
MFJ [1]	63%	7%	8%
HOH	19%	32%	19%
Single	15%	10%	40%
<b>All Filers</b>	<b>34%</b>	<b>17%</b>	<b>21%</b>
Received the EITC in 2000 and Sporadically 3-5 Additional Years			
MFJ [1]	70%	16%	6%
HOH	15%	62%	14%
Single	15%	28%	43%
<b>All Filers</b>	<b>35%</b>	<b>39%</b>	<b>16%</b>

Footnotes at end of table.

**Table 8: Characteristics of Individuals Who Received the EITC in 2000: Filing Status in 2000 and in 2006 by Intensity of Participation—Continued**

Filing Status in 2000	Filing Status in 2006		
	MFS	Non-Filer	Total
Received the EITC in 2000 Only			
MFJ [1]	1%	32%	<b>100%</b>
HOH	2%	39%	<b>100%</b>
Single	1%	48%	<b>100%</b>
<b>All Filers</b>	<b>1%</b>	<b>39%</b>	<b>100%</b>
Received the EITC in 2 or 3 Consecutive Years Including 2000			
MFJ [1]	1%	35%	<b>100%</b>
HOH	2%	40%	<b>100%</b>
Single	1%	52%	<b>100%</b>
<b>All Filers</b>	<b>2%</b>	<b>41%</b>	<b>100%</b>
Received the EITC in 4, 5 or 6 Consecutive Years Including 2000			
MFJ [1]	1%	31%	<b>100%</b>
HOH	2%	37%	<b>100%</b>
Single	1%	45%	<b>100%</b>
<b>All Filers</b>	<b>2%</b>	<b>35%</b>	<b>100%</b>
Received the EITC in All Years from 2000 through 2006			
MFJ [1]	n.a.	n.a.	<b>100%</b>
HOH	n.a.	n.a.	<b>100%</b>
Single	n.a.	n.a.	<b>100%</b>
<b>All Filers</b>	n.a.	n.a.	<b>100%</b>
Received the EITC in 2000 and Sporadically 1 or 2 Additional Years			
MFJ [1]	1%	21%	<b>100%</b>
HOH	1%	29%	<b>100%</b>
Single	1%	34%	<b>100%</b>
<b>All Filers</b>	<b>1%</b>	<b>28%</b>	<b>100%</b>
Received the EITC in 2000 and Sporadically 3-5 Additional Years			
MFJ [1]	*	8%	<b>100%</b>
HOH	*	10%	<b>100%</b>
Single	*	13%	<b>100%</b>
<b>All Filers</b>	<b>*</b>	<b>10%</b>	<b>100%</b>

[1] Qualified widows are included with joint filers.

\* Less than 0.5%

number of qualifying children or dependents in 2006 as in 2000 (see Table 9). But we also see evidence of family growth among this population: over 60 percent of those who filed as single in 2000 claimed head-of-household filing



**Table 9: Characteristics of Individuals Who Received the EITC in 2000: Number of Children in 2000, and Number of Dependents in 2006 by Intensity of Participation**

Number of Qualifying Children in 2000	Number of Dependents in 2006				
	None	One	Two or more	Non-Filers	Total
Received the EITC in 2000 Only					
None	44%	4%	3%	48%	100%
One	38%	16%	12%	35%	100%
Two	20%	10%	37%	33%	100%
<b>Total</b>	<b>35%</b>	<b>10%</b>	<b>16%</b>	<b>39%</b>	<b>100%</b>
Received the EITC in 2 or 3 Consecutive Years Including 2000					
None	41%	4%	3%	53%	100%
One	36%	15%	12%	37%	100%
Two	20%	9%	32%	39%	100%
<b>Total</b>	<b>31%</b>	<b>10%</b>	<b>18%</b>	<b>41%</b>	<b>100%</b>
Received the EITC in 4, 5 or 6 Consecutive Years Including 2000					
None	43%	5%	5%	47%	100%
One	30%	21%	16%	34%	100%
Two	19%	12%	35%	34%	100%
<b>Total</b>	<b>25%</b>	<b>15%</b>	<b>24%</b>	<b>35%</b>	<b>100%</b>
Received the EITC in All Years from 2000 through 2006					
None	56%	18%	25%	n.a.	100%
One	4%	52%	44%	n.a.	100%
Two	2%	18%	79%	n.a.	100%
<b>Total</b>	<b>6%</b>	<b>31%</b>	<b>64%</b>	<b>n.a.</b>	<b>100%</b>
Received the EITC in 2000 and sporadically 1 or 2 Additional Years					
None	50%	9%	7%	34%	100%
One	28%	26%	20%	26%	100%
Two	15%	15%	45%	24%	100%
<b>Total</b>	<b>30%</b>	<b>17%</b>	<b>25%</b>	<b>28%</b>	<b>100%</b>
Received the EITC in 2000 and sporadically 3-5 Additional Years					
None	54%	17%	16%	14%	100%
One	16%	40%	35%	10%	100%
Two	8%	20%	63%	8%	100%
<b>Total</b>	<b>18%</b>	<b>27%</b>	<b>45%</b>	<b>10%</b>	<b>100%</b>

or joint status by 2006; 44 percent of those without any children in 2000 had at least one dependent by 2006; and 44 percent of those with only one qualifying child in 2000 had two or more dependents by 2006. Among this group, families rarely contracted: Only 2 percent of families with two or more qualifying children in 2000 had no dependents by 2006; similarly, only 2 percent of married individuals filed as single in 2006.

The picture is somewhat different (and more diverse) among those who received the EITC only in 2000. About 39 percent did not file any return in 2006—and the percentage not filing a return in 2006 was highest among those who filed as single in 2000. Among those who continued to file tax returns, they typically either gained a spouse or lost a dependent. One in four of those who filed as heads of households in 2000 was married by 2006. And 38 percent of those who had one qualifying child in 2000 had no dependents by 2006. Similar patterns are observed for those who received the EITC for 1 or 2 more years.

The remaining EITC participants generally look more like the one-time claimants. A large share of those who claimed the EITC more than 1 consecutive year (particularly those who filed as single in 2000) were no longer filing returns by 2006—and, among those who did file, they were about as likely as the one-time recipients to gain a spouse or lose a dependent. This is less true, though, of those who received the credit sporadically over the span of the panel.

Table 10 examines changes in adjusted gross income (in 2006 dollars) between 2000 and 2006. By definition, those who received the EITC for all 7 years had to maintain income levels within the credit's eligibility range. Among those who reported less than \$10,000 of income in 2000, 31 percent remained in that income category in 2006, and 45 percent had moved up to the next income category (\$10,000 to \$20,000). 38 percent of those whose incomes had been between \$10,000 and \$20,000 remained in that income range in 2006—but over half saw their incomes rise by 2006. Among those who had earnings between \$20,000 and \$30,000 in 2000, one in four reported an increase in adjusted gross income by 2006. Still, about one-third had a drop in income during the period.

As might be expected, the income growth among those who received the EITC only in 2000 and were still filing a return in 2006 was far more dramatic. Among those who had earned between \$10,000 and \$20,000 in 2000, nearly a third were earning more than \$50,000 in 2006; 43 percent of those who had received between \$20,000 and \$30,000 of income were also in that higher bracket by 2006. But, as noted earlier, about 39 percent of this population did not file a tax return in 2006—and that difference was most marked among those with the lowest incomes. Among those who had earned under \$10,000 in 2000, 55 percent did not file a return in 2000.

**Table 10: Characteristics of Individuals Who Claimed the EITC in 2000: AGI of Individuals in 2000 and in 2006 by Intensity of Participation**

Adjusted Gross Income in 2000 (2006 Dollars)	Adjusted Gross Income in 2006				
	less than \$0	\$0- \$10,000	\$10,000- \$20,000	\$20,000- \$30,000	\$30,000- \$40,000
Received the EITC in 2000 Only					
\$0 - \$10,000	*	5%	7%	7%	6%
\$10,000 - \$20,000	*	*	7%	10%	10%
\$20,000 - \$30,000	*	*	*	6%	14%
<b>All Recipients</b>	<b>1%</b>	<b>3%</b>	<b>6%</b>	<b>7%</b>	<b>9%</b>
Received the EITC in 2 or 3 Consecutive Years Including 2000					
\$0 - \$10,000	*	6%	7%	6%	5%
\$10,000 - \$20,000	*	2%	7%	11%	10%
\$20,000 - \$30,000	*	*	3%	7%	17%
<b>All Recipients</b>	<b>1%</b>	<b>3%</b>	<b>6%</b>	<b>8%</b>	<b>9%</b>
Received the EITC in 4, 5 or 6 Consecutive Years Including 2000					
\$0 - \$10,000	*	7%	11%	6%	8%
\$10,000 - \$20,000	*	3%	9%	12%	17%
\$20,000 - \$30,000	*	*	4%	9%	25%
<b>All Recipients</b>	<b>1%</b>	<b>4%</b>	<b>9%</b>	<b>10%</b>	<b>15%</b>
Received the EITC in All Years from 2000 through 2006					
\$0 - \$10,000	*	31%	45%	19%	4%
\$10,000 - \$20,000	*	11%	38%	41%	10%
\$20,000 - \$30,000	*	8%	24%	43%	24%
<b>Total Recipients</b>	<b>*</b>	<b>19%</b>	<b>39%</b>	<b>32%</b>	<b>9%</b>
Received the EITC in 2000 and sporadically 1 or 2 Additional Years					
\$0 - \$10,000	2%	19%	18%	9%	6%
\$10,000 - \$20,000	*	9%	14%	15%	14%
\$20,000 - \$30,000	*	5%	9%	14%	24%
<b>Total Recipients</b>	<b>1%</b>	<b>13%</b>	<b>14%</b>	<b>12%</b>	<b>12%</b>
Received the EITC in 2000 and sporadically 3-5 Additional Years					
\$0 - \$10,000	1%	34%	29%	13%	6%
\$10,000 - \$20,000	*	16%	26%	27%	16%
\$20,000 - \$30,000	*	9%	18%	28%	29%
<b>Total Recipients</b>	<b>1%</b>	<b>22%</b>	<b>26%</b>	<b>21%</b>	<b>14%</b>

Footnotes at end of table.

Among the remaining EITC participants, the growth in adjusted gross income was more dramatic for those who received the credit for fewer years—and that finding was particularly true among those who received the credit for 2 or more consecutive years.

**Table 10: Characteristics of Individuals Who Claimed the EITC in 2000: AGI of Individuals in 2000 and in 2006 by Intensity of Participation—Continued**

Adjusted Gross Income in 2000 (2006 Dollars)	Adjusted Gross Income in 2006			
	\$40,000- \$50,000	more than \$50,000	Non-Filers	Total
Received the EITC in 2000 Only				
\$0 - \$10,000	5%	14%	55%	100%
\$10,000 - \$20,000	11%	32%	30%	100%
\$20,000 - \$30,000	20%	43%	14%	100%
All Recipients	10%	25%	39%	100%
Received the EITC in 2 or 3 Consecutive Years Including 2000				
\$0 - \$10,000	5%	13%	58%	100%
\$10,000 - \$20,000	12%	26%	32%	100%
\$20,000 - \$30,000	22%	32%	18%	100%
All Recipients	11%	21%	41%	100%
Received the EITC in 4, 5 or 6 Consecutive Years Including 2000				
\$0 - \$10,000	8%	10%	50%	100%
\$10,000 - \$20,000	15%	15%	30%	100%
\$20,000 - \$30,000	23%	18%	20%	100%
All Recipients	13%	13%	35%	100%
Received the EITC in All Years from 2000 through 2006				
\$0 - \$10,000	n.a.	n.a.	n.a.	100%
\$10,000 - \$20,000	n.a.	n.a.	n.a.	100%
\$20,000 - \$30,000	n.a.	n.a.	n.a.	100%
Total Recipients	n.a.	n.a.	n.a.	100%
Received the EITC in 2000 and sporadically 1 or 2 Additional Years				
\$0 - \$10,000	4%	6%	37%	100%
\$10,000 - \$20,000	10%	14%	23%	100%
\$20,000 - \$30,000	17%	18%	14%	100%
Total Recipients	8%	11%	28%	100%
Received the EITC in 2000 and sporadically 3-5 Additional Years				
\$0 - \$10,000	2%	2%	13%	100%
\$10,000 - \$20,000	4%	3%	8%	100%
\$20,000 - \$30,000	7%	4%	5%	100%
Total Recipients	4%	3%	10%	100%

\* Less than 0.5%

Rows may not sum to 100 percent due to rounding.

### Reasons for Changes in EITC Participation

In Table 11, we try to isolate the key reason why over half of those who claimed the credit in 2000 no longer received it in 2006. As the previous section suggests, one reason that people stop claiming the EITC is that they no longer file tax returns. 20 percent of EITC recipients in 2000 dropped out of the filing population by 2006. Without a tax return, it is difficult to know exactly what happened to those people in 2006. However, we do know

**Table 11: Analysis of Reasons Why EITC Was Not Received in 2006 by Individuals Who Received Credit in 2000**

<b>Total EITC recipients in 2000</b>	<b>22,816,200</b>
<b>Did not receive EITC in 2006</b>	<b>52.2%</b>
<b>Did not file tax return in 2006</b>	<b>20.0%</b>
Had W-2 wages above filing threshold in 2006 (based on last known filing status)	2.5%
Had W-2 wages below filing threshold in 2006 (based on last known filing status)	4.1%
Had no W-2 wages	13.4%
In 2000, had W-2 wages but no self-employment income	10.5%
In 2000, had self-employment income and W-2 wages	2.1%
In 2000, had self-employment income but no W-2 wages	0.8%
<b>Filed tax return in 2006</b>	<b>32.3%</b>
Received notice (CP 09/27) from IRS but did not receive EITC	0.3%
Do not appear to be eligible for the EITC in 2006	32.0%
Filing status changed, making individual ineligible for EITC	6.9%
Filing status changed to MFS by 2006	0.8%
Single or HOH filer married a worker and combined income exceeded EITC threshold in 2006	6.2%
Filing unit's income increased above EITC threshold in 2006	20.4%
Childless in 2000, no child dependents in 2006, and AGI or earned income exceed childless threshold	3.0%
Childless in 2000, child dependents in 2006, and AGI or earned income exceed child threshold	0.3%
Qualifying children in 2000 and dependents in 2006, and AGI or earned income exceed child threshold	10.8%
Qualifying children in 2000, no dependents in 2006, and AGI or earned income exceed childless threshold	6.3%
Earned income dropped to zero by 2006	1.4%
Other	3.2%

**Table 12: Analysis of Reasons Why EITC Was Not Received in 2000 by Individuals Who Received Credit in 2006**

<b>Total EITC Recipients in 2006</b>	<b>27,396,900</b>
<b>Did not receive EITC in 2000</b>	<b>60.4%</b>
<b>Did not file tax return in 2000</b>	<b>23.6%</b>
Had W-2 wages above filing threshold in 2006 (based on first known filing status)	1.2%
Had W-2 wages below filing threshold in 2006 (based on first known filing status)	3.2%
Had no W-2 wages	16.2%
In 2006, had W-2 wages but no self employment income	12.4%
In 2006, had self-employment income and W-2 wages	1.5%
In 2006, had self-employment income but no W-2 wages	2.3%
<b>Filed tax return in 2000</b>	<b>36.9%</b>
Do not appear to be eligible for the EITC in 2000	36.1%
No dependents claimed in 2000 and AGI above childless threshold	26.0%
No dependents claimed in 2000 and age outside range for childless EITC	7.6%
Other	2.5%

whether they received a W-2. In a small number of instances (2.5 percent), the individuals appeared to have sufficient earnings (given their last known filing statuses) to have been required to file a return in 2006. In most cases, though, they appear to have had no earnings at all in 2006: 13 percent of EITC claimants in 2000 did not file a 2006 tax return nor had any record of wages reported on a W-2 for that year.<sup>9</sup>

About one-third of those who received the EITC in 2000 filed a tax return in 2006, even though they did not receive the credit. In the majority of these cases, the incomes for their filing units exceeded the EITC thresholds—and typically without any changes in family status that might have contributed to losing eligibility for the EITC. Thus, among the 32 percent who filed a tax return in 2006 but did not claim the credit, roughly one-third had children in 2000 and dependents in 2006—but their incomes in 2006 exceeded the EITC thresholds. However, only about 1 percent reported that they no longer had any earned income.

<sup>9</sup> Although it is possible that these nonclaimants had earnings from self-employment in 2006 that would not have been reported on a Form W-2, only a small number of those individuals had reported such income in 2000. Among EITC claimants in 2000, only about 2.9 percent reported self-employment income in 2000 and neither filed a tax return nor had a W-2 record in 2006.

Changes in family status also contributed to a dropoff in participation. Over 6 percent of those who claimed the EITC in 2000 had married another worker by 2006, and their combined earnings brought them over the EITC thresholds. Notably, changing filing status to married filing separate—a status that causes married couples to lose the EITC—did not significantly affect participation in 2001. Another 6 percent who had claimed a qualifying child in 2000 no longer had any dependents in 2006 and earned too much to qualify for the childless credit.

From the perspective of the IRS in 2006, very few of the former EITC recipients looked eligible in 2006. Based on the information on their current tax returns, the IRS sends people notices—the CP09 if they have child dependents and the CP27 otherwise—indicating that they may be eligible for the EITC and urging them to apply for the credit. Those notices were sent to less than 1 percent of those who did not receive the credit in 2006.

We also looked backwards. Table 12 looks at EITC recipients in 2006 to determine why over 60 percent did not claim the credit in 2000. Over 20 percent did not file a return in 2000, and, in most cases, they did not have any earnings reported on W-2s. Among the 37 percent who did file a return, most did not have dependents in 2000 and either earned too much to qualify for the childless EITC or were too young. (To qualify for the childless EITC, recipients must be at least 25 years old or under age 65.)

## **Conclusions and Future Research**

EITC participation is dynamic. An annual snapshot of EITC participants includes people who receive the EITC for only 1 year, others who will receive the credit for a long period, and the majority who receive the credit for several years (sometimes with breaks between years of receipt). Seen from a long-term perspective, millions more people flow in and out of the EITC population than a one-time snapshot reveals.

The contrasts are striking between those who received the EITC for 1 year during the course of the panel and those who received the credit for all 7 years. Short-term recipients were more likely to be male—and a substantial number were also single and childless. In contrast, long-term recipients tend to be single females with children.

Over time, the reasons for participation vary, reflecting changes in both family and financial circumstances. The largest factor explaining why people became eligible or lost eligibility for the EITC between 2000 and 2006 appeared to be changes in income—both positive and negative. 15 percent of EITC participants in 2000 did not have a record of wage income by 2006

(including both nonfilers who did not have any record of a W-2 being filed on their behalf and filers who reported that earned income on their tax returns was zero). On the other hand, about 20 percent had income in excess of the credit's eligibility thresholds in 2006. But changes in family circumstances also caused people to lose eligibility for the EITC by 2006—generally either through the acquisition of a working spouse or the aging or departure of a dependent.

As noted at the beginning, this paper lays the foundation for future research that can examine the effectiveness of the EITC in achieving its goals of increasing work effort and reducing poverty. Panel data would allow researchers to examine changes in an individual's employment status and earnings over time. Achieving those goals may require tradeoffs with other policy goals; for example, the EITC—by changing incentives to marry and have children—may affect family structure in ways that were not intended by the legislation. Panel data would provide greater insight into the effect of the credit on family formation. Panel data can also address questions concerning the administration of the EITC. Turnover among EITC claimants over time may present challenges for tax administrators, as new people enter the filing population and must learn the credit's eligibility rules. Another question regards the effectiveness of EITC enforcement efforts. The IRS has invested substantial resources to reduce noncompliance among EITC claimants, but little is known about the effect of those compliance efforts on individual filers. The data in this panel file would enable researchers to consider the effectiveness of IRS efforts to improve both participation and compliance.

Unlike Census data or other public surveys, the new EITC panel allows us to follow actual recipients of the EITC. Unlike some earlier tax panels, this dataset also allows us to follow, among couples who initially file joint returns, both spouses, even if their marriage dissolves and the individuals file separate returns in subsequent years. The richness of this panel data also extends to the inclusion of information on IRS administrative actions—including both outreach and enforcement. As a consequence, the new EITC panel promises to provide new insight into the effectiveness of the credit in meeting both its policy and administrative goals.

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# **A Tax Education and Asset Building Campaign for Low-Income and Limited-English Worker Populations: Lessons from Four States, TY 2004-TY 2007**

*Bárbara J. Robles,  
Arizona State University*

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Over 55 percent of the 48 million Hispanics in the United States reside in four states with a contiguous border with Mexico: Texas, New Mexico, Arizona, and California. Local, State and national nongovernmental community-based organizations (CBOs) and local government agencies, as well as local, State, and national community foundations, have formed support coalitions and networks offering free or low-fee tax preparation services in an effort to aid working families meet their tax obligations. In addition, tax education campaigns in hard to reach communities have increased the tax filing participation rates of working families. As working families are faced with increased financial stress and limited labor market opportunities, the Earned Income Tax Credit (EITC) becomes an important contribution to family financial stability and asset building for low-income and limited-English-speaking populations.

The research literature assessing the impact the EITC has on working families' well-being and on the poverty reduction potential the program exhibits is numerous (Romich and Weisner, 2000; Mammen and Lawrence, 2006; Smeeding, Phillips, and O'Connor, 2000; Berube, 2005). Differences between rural and urban low-income families, as well as cultural behaviors toward asset building, bring an additional research challenge to policy assessment and policy making. Geographical regions with high immigrant and immigrant-legacy communities create a further layer of program delivery and outreach challenge. Community-based organizations operating in hard to reach areas have developed a variety of outreach strategies that remain below the research radar and yet offer a possible outreach template for replication in new gateway regions.

This study chronicles a 4-year data collection effort that ties financial behaviors with tax filing participation in four border States. It first describes the chronology of the Frontera Asset Building Network (FABN) and the

action research partnership.<sup>1</sup> It then discusses the survey instrument, data collection, and methodology. It presents logistic regression results and interprets findings from the empirical analysis. Lastly, it provides alternative policy directions and raises future research questions centered on expanding community tax education and financial education outreach.

### **Bringing Border Voices to the Research/Policy Table**

In November 2002 and June 2003, two Policy Roundtable Learning Dialogues on *Latino Family Asset and Community Capacity Building on the Southwest Border* and *Latino Families, Tax and Financial Services on the Southwest Border* sponsored by the Annie E. Casey Foundation's Border Portfolio took place at a major southwestern university. The participants at these learning exchanges represented Federal, State, and local government agencies, elected officials, nongovernmental organizations (NGOs), community-based organizations (CBOs), foundations, and academic researchers.

All participants were directly involved with researching, managing, funding, and delivering community services that impact the well-being and financial stability of Latino families residing on the U.S.-Mexico border. Many of the participants did not have intimate field knowledge of the borderlands. In order for the learning "dialogue" to move beyond the usual media images of the U.S.-Mexico border, CBOs with long-term presence in the borderlands were crucial knowledge partners and provided perspectives that have been missing from policy and program design. Directors of Latino community-based organizations provided anecdotal and first-hand information with participants from elected officials' offices; Federal, State, and local government agencies; think tanks; academia; and foundations. The dialogues (Yankelovich, 2001) therefore provided an opportunity for those not familiar with the day-to-day activities occurring in Latino working poor communities and *colonias* to become familiar with the unique characteristics of communities located on the U.S.-Mexico border.<sup>2</sup>

The most salient factor that emerged from the roundtables was a consensus surrounding the lack of information and data on daily economic behaviors and activities of predominantly Latino working poor families residing in the Southwest borderlands. Throughout the discussions and exchanges, it became apparent that community voices and perspectives represented by culturally responsive community-based organizations were missing from mainstream research. The public domain data currently used to research the borderlands did not clarify or clearly convey the cultural reality, economic activities,

resources, survival strategies, and financial constraints faced daily by border residents and families. Nor did the data document the economic resiliency and asset building behaviors, such as pooling and sharing resources and innovative resource leveraging, of working poor border communities.

The relevant issues that surfaced during the consultative learning dialogues indicated that: financial and consumer nonliteracy in *colonias* and predominantly Latino working poor border communities are not the sole barriers to healthy economic behaviors, community capacity building, and family financial stability. Institutionalized “business as usual” practices that impede working poor Latino families from access and participation in mainstream wealth building markets, such as housing, financial and tax services, and education and health services, were identified as important barriers. Culturally responsive consumer and economic behaviors were discussed as asset and wealth “leveraging” resources in *colonias* and other metropolitan areas along the U.S.-Mexico border.<sup>3</sup>

The learning dialogues facilitated by the Annie E. Casey “advocate/learner” border program officer uncovered a consensus among participating border community organizations to continue the conversation by holding a retreat. The retreat was held 1 month after the learning dialogues—capitalizing on the continued synergy among border community-based organizations—and created a blueprint for a strategy linking border community voices with tax services and tax education campaigns centered on the Earned Income Tax Credit (EITC).<sup>4</sup> From the retreat, a new collaborative coalition emerged: the Frontera Asset Building Network (FABN). The members of this core group represent the four border States: Texas, New Mexico, Arizona, and California. The FABN members identified affordable and reliable tax preparation services as the key in connecting border families and individuals to the following asset building and family strengthening services:

- Public assistance eligibility services
- Home ownership counseling
- Culturally responsive financial and tax education
- Individual development accounts
- Down payment assistance programs
- Leadership and self-advocacy development training
- Small and microbusiness incubator programs, and
- Self-help and affordable housing programs.

The members of FABN individually and in partnership with other local nonprofits and local government agencies deliver social services that integrate education, self-empowerment, tangible skill-building, and asset ownership in a culturally responsive and family-strengthening manner. At the very core of the strategizing is an ongoing commitment to increase each community-based organization's social capital by connecting and sharing information on programs, services, and delivery mechanisms that work well along the border. Of equal importance among the coalition members is the commitment to share information about the failures in service delivery as well.

One additional strategy that FABN members believe is necessary for successful coalition and individual organization capacity building and fund-raising is a commitment to collect and control data on their own communities. The membership base has grown since the early strategizing retreat in 2003. Currently, membership in FABN centers on providing tax preparation services during tax season, as well as engaging in survey administration and research participation that include all four border States, spanning eight coalitions and over 70 individual community-based organizations with local, State, and Federal Government agency partners, as well as local, regional, and national foundation support and local and regional private corporate and nonprofit sponsorship.<sup>5</sup>

## **From Listening and Learning to Action Research**

Much of the informal economic activities and financial decisionmaking behaviors that occur in border communities do not appear directly in data sets but rather must be observed firsthand in the field. Employing mixed methodological approaches to understanding borderlands "hidden" assets and family resiliency and survival strategies requires an inclusive partnership with community-based organizations in prioritizing community services. Part of such inclusive approaches to mapping community resources and uncovering community preferences is to incorporate cultural assets and behaviors into the choice of research method.

New poverty research seeks to minimize cultural "colonization" while increasing self-sustaining economic well-being and quality-of-life welfare (Fisher and Ball, 2003). By engaging in socially-embedded research from design, implementation, evaluation, and findings with community partners and emphasizing learning-based connections, community data become a basis for community self-advocacy. The role of culturally inclusive data

**Table 1. Frontera Asset Building Network (FABN) Members**

<b>Coalition</b>	<b>Partners</b>
<b>California</b> <b>San Diego Family Asset Building Coalition</b>	San Diego Community Foundation, Community Housing Works, MAAC Project, Casa Familiar, International Rescue Committee
<b>Arizona</b> <b>Southern Arizona Earned Income Tax Credit Coalition</b>	IRS, AARP, Catholic Community Services, United Way of Tucson, Arizona Community Foundation, Cochise Community Foundation, Nogales Community Development Corporation, Goodwill Industries, Project PEP, Chicanos por la Causa, Wells Fargo Bank, AEA Credit Union, Arizona Federal Credit Union, Housing America, City of Yuma, Yuma Community Foundation, Arizona State University
<b>New Mexico</b> <b>Las Cruces</b>	Dona Ana Branch Community College, Community Action Agency of Southern New Mexico, New Mexico Community Foundation, Tax Help New Mexico
<b>Texas</b> <b>El Paso Coalition for Family Economic Progress</b>	El Paso Affordable Housing/Credit Union Services Organization, IRS, Ysleta Pueblo del Sur, City of El Paso, County of El Paso, Frontera Women's Fund, West Texas Credit Union, Centro Salud Familiar La Fe, YWCA, El Paso Collaborative, United Way of El Paso, Sparks Housing Development Corporation, Housing Authority of El Paso, AARP
<b>Middle Rio Grande</b>	City of Eagle Pass, City of Del Rio, City of Carrizo Springs, City of Crystal City, City of Cotulla, Fort Duncan Regional Medical Center, Eagle Pass Chamber of Commerce, Uvalde-El Progreso Library, Community Council of SWT, Carrizo Springs ISD, Eagle Pass ISD, Border Federal Credit Union, IBC Bank, Bank of America in partnership with United Way, Uvalde National Bank, Del Rio Bank and Trust, Del Rio National Bank, Del Rio Amistad Bank, FUTURO Communities, Inc., Community Action Social Services Education (CASSE), Del Rio Housing Authority, Sul Ross State University-Rio Grande College, Middle Rio Grande Development Council, Middle Rio Grande Foundation and Middle Rio Grande Workforce Board
<b>Economic Opportunities Coalition</b>	United Way of Southern Cameron County, Consumer Credit Counseling Services of South Texas, Cameron Works, Chase Bank, Wells Fargo Bank, Brownsville Public Utility Board, University of Texas Brownsville, Cameron and Willacy County Community Programs
<b>Laredo Family Economic Success Coalition</b>	Azteca Economic Development and Preservation Corp., City of Laredo Community Development Dept., Internal Revenue Service, Laredo Area Community Foundation, Laredo Independent School District, Laredo Public Library, South Texas Workforce Development Board, Texas A&M International University, United Independent School District
<b>Hidalgo County</b>	Rural: 4 LUPE offices, Proyecto Azteca, Azteca Community Loan Fund Urban: Children Defense Fund

Source: Nadia Diaz-Funn, Border Portfolio, Annie E. Casey Foundation and FABN.

collection brings to the fore and reveals the cultural capital of border communities, as well as the role of ethnic and cultural legacy communities in the region. Community data collection also sheds light on families' needs and preferences along with what type of community change residents desire. Given the increased presence of Mexican-origin populations in new gateway communities such as Raleigh-Durham, NC, Des Moines, IA, Omaha, NE, Las Vegas, NV, and Atlanta, GA, the information gathered from community by community creates the opportunity to share insights with other community-based organizations (CBOs) serving new gateway populations.

Socially-embedded community research provides the community with access to data that deconstruct and dispel media-driven "stereotypes." Additionally, communities can advocate based on data that are place-based and include historical and cultural legacy information (Fisher and Ball, 2003). Border culture and language play a large role in family economic security and financial resiliency behaviors, and the community data capture this aspect of border family life. Multigenerational, multi-earner border family units engage in shared asset building, and the CBO tax season survey uncovers "hidden" border family and community assets not previously documented (Robles, 2007).

**Table 2. Frontera Asset Building Network Program Outcomes**

<b>Frontera Asset Building Network Asset Building Results 2006-2007</b>	
Amount of EITC Claimed	\$19,124,283.00
Amount of \$ Federal returns	\$38,844,126.00
Number of returns filed by free or low-fee tax preparation	39,581
Completed IDAs	316
Enrolled IDAs	483
IDA Matching Ratio	Ranges from 1:1 match to 4:1
IDA Maximum	Ranges from \$1,000-\$15,000
Completed Homebuyer Workshops	3,674
Number of Homes Purchased	782
Savings Accounts Opened	1,744
Checking Accounts Opened	9,972
Number of Improved Credit Scores	128
Tax Prep Fees Saved	\$8,478,551.00
Small Business Opened/Expanded	189

Community-centered action research has multiplier effects within local communities and across regional coalitions. By employing the Earned Income Tax Credit as an “anchoring” tax service and education campaign, FABN members are able to capitalize on community social capital among and between different border States with unique urban and rural regional issues. For example, Texas has the largest number of contiguous counties (20) along the U.S.-Mexico border which include both rural and rapidly growing urban areas. These areas often have more in common with other border State urban areas than with various regional communities in Texas.

### **Survey Administration, Data Description, and Methodology**

A pilot survey was designed during the initial FABN retreat that incorporated salient issues identified by the community-based organizations. The most significant aspect of the survey design was that it be as noninvasive as possible while still capturing financial and tax education issues and economic mobility aspirations as well as daily economic resiliency behaviors engaged in by border residents. The survey was designed to be short in order to increase response rates and to dovetail with residents’ focus on tax preparation information. For example, two questions that were identified as important areas of concern with respect to research gaps in understanding border communities’ financial resiliencies were: (1) Do border families and individuals employ their tax refunds in asset-building and wealth-enhancing opportunities? and (2) Do families and individuals aspire to learn more about financial products and tax services?

In addition, issues regarding the availability of affordable financial transactions services and products were raised at the learning dialogues and at the FABN retreat. Several survey questions were designed to capture this aspect of border families’ financial access: (1) Where do you cash your paycheck? (2) Do you use money orders to pay your bills? (3) Have you ever received your tax refund the same day (or within the week) from a commercial tax preparer? (4) Do you lend to or borrow from family members in emergencies? And (5) Do you send money to family members not residing with you? These questions reveal how border residents go about accessing financial transactions services while living in a cash-based, binational, and bicultural economy. The questions are designed to capture and produce a contextual interpretation of family financial resiliency behaviors by asking questions that do not appear in standard mainstream financial behavior and attitude surveys.



Finally, to better understand how border families engage in asset building and savings behaviors, a survey question designed to capture “informal savings circles” known as rotating savings and credit associations (ROSCAS) was included in the survey instrument. This particular question captures savings behavior that has a communal-trust component since it occurs outside mainstream financial institutions, does not have an interest rate attached to it, and relies on a high degree of trust among the savings participants.<sup>6</sup>

The various members of the FABN border community-based organizations agreed to administer the surveys during tax seasons (January 15 to April 15) at the participating border community-based organizations that offer either low-fee tax preparation services or free tax preparation services affiliated with VITA (Volunteer Individual Tax Assistance) programs.<sup>7</sup> All the FABN coalitions are partners of the Internal Revenue Service VITA programs, and individual CBOs are also community research partners as well as data collection sites offering free or low-cost tax preparation. The surveys are administered in English and Spanish, and each community-based organization has its own individual intake protocol for serving community residents during tax season.

**Table 3. Frontera Asset Building Financial Behaviors Survey, Tax Years 2004-2007**

Survey Years	Number of Total Survey Respondents	Number of Spanish Survey Respondents
<b>TY 2004</b>	4,551	1,080 (24%)
<b>TY 2005</b>	7,068	1,973 (28%)
<b>TY 2006</b>	6,450	2,141 (33%)
<b>TY 2007</b>	7,377	1,871 (25%)

Source: FABN Financial Behaviors Survey, All Border sites, Tax Years 2004 to 2007.

The response rates are generally high and attributable to the long-term presence of the community-based organizations (CBOs) and the CBOs’ reputation for serving community residents.<sup>8</sup> Over the 4 years of data collection, each individual site experienced a variety of service delivery issues: volunteer churning, tax season coordinator turnover, changes in their software or IT system, key program personnel changes, and funding changes. Despite these various challenges, sites remain committed to collecting data and administering the surveys, and few sites dropped out over the 4-year collection effort. Indeed, new sites were added during this timeframe.

Although the data are collected over several years, there is no unique identifier for individual respondents that can be tracked over time. Thus,

the data collected are not a “longitudinal” panel whereby observations of the same individual over time are collected in repeated surveys. Rather, the data are panel data of tax filers choosing to respond to the paper survey and contain a large number of observations (N) per time period and a small number of time episodes (T=4 years). This allows analysis of single-year logistic models (Tax Years 2004 to 2007) that capture Spanish survey respondents’ impact on the probability of engaging in asset building and economic security behaviors.

In order to fully grasp the financial resiliency behaviors of hard-to-reach, limited English-speaking and low-wealth communities, Table 4 compares response rates for Tax Year 2007 across the various survey questions. Few questions on the survey sum to 100 percent response counts. The importance of engaging hard-to-reach respondents on surveys is predicated on providing many possible behavioral context response opportunities. Thus, many of the questions indicated: “circle or check off all that apply.” Additionally, since the surveys were administered as voluntary and not compulsory, many of the respondents chose to answer some questions and not others.<sup>9</sup>

A significant number of Latino respondents used the English survey but non-Latinos opted to use the Spanish survey as well. Thus, caution is employed in assuming that only Latinos responded in Spanish; a significant portion of Native Americans used the Spanish survey. Additionally, many of the questions were designed to capture “daily” or “usual” financial behaviors. Thus, instead of asking about a particular financial account ownership (which many border LEP residents are assumed *not* to have), our interest was in what types of financial institutions and accessible locations for financial transactions residents actually frequented. Our goal focused on capturing what folks did (proactive), as opposed to what they did not do (passive).

One feature of border resident financial transactions behavior that has been uncovered over the 4 years of FABN survey administration directly provides empirical evidence that having a relationship with a mainstream financial institution does not automatically create low-cost options for financial transactions in “cash-economy” communities. For example, it does no good to own a checking account when the landlord only accepts money orders or cash for rent payments every month, and the corner 7-11 is the only grocery store within walking distance, given that individual auto ownership is too expensive and public transportation is limited. This on-the-ground cash-economy reality for many border residents explains the high rate of money order usage among border survey respondents despite high rates of financial mainstream attachment.

Research in low-income communities has focused almost exclusively on the “choices” that low-income residents make in financial transactions when a supply-side assessment is missing (i.e., What suppliers of affordable financial services and products exist and operate in low-income communities?). Such a balanced supply-demand side study would reveal the limited choices available to cash-economy low-income neighborhoods and community residents. Field observations in low-income communities reveal an entirely different consumer economy with respect to a variety of financial markets and services (Krager, 2005). This lived-reality for border residents (and other established ethnic enclave and new gateway immigrant communities) has obvious spillover effects for financial education and tax education outreach.

## Logit Model Results and Findings

The unique regional data provide an opportunity to ask four questions that shed light on the connection between low-income tax preparation services offered in hard-to-reach communities and how residents engage in financial resiliency given their participation in tax filing and receipt of Federal tax refunds. Summary statistics for dependent variables used in all 4 models and the explanatory variables for Tax Years 2004 to 2007 are presented in Table 5.<sup>10</sup>

The first logit model sheds light on the continuing significance of attachment to a mainstream financial institution. The second logit model seeks to uncover the relationships between asset building through home ownership and financial behaviors. The third and fourth logit models provide empirical evidence of financial security aspirations of border families with respect to engaging in savings behaviors and asset accumulation through Kids Savings Account and Individual Development Accounts (IDAs).<sup>11</sup>

Model 1—Use a Financial Account (Bank + Credit Union + Direct Deposit)

$$\text{Pr}(\text{Use a Financial Account} \mid \text{Tax Filer Border Resident}) = \\ \text{Constant} + \text{Adjusted Gross Income} + \text{Amount of Federal} \\ \text{Tax Return} + \text{Lending to/Borrowing From Family Members} \\ \text{in Emergencies} + \text{Being a Homeowner} + \text{Years of Educa-} \\ \text{tion} + \text{Number of Dependents} + \text{Used Spanish Version of} \\ \text{Survey} + \varepsilon$$

**Table 4. Financial Behaviors and Decisions Survey, TY 2007**

	<b>Border n=7377</b>	<b>Spanish Survey n=1871</b>	<b>English Survey n=4020</b>
<b>Race/Ethnicity</b>			
Latino	72.9%	93.6%	61.8%
Native American	5.4%	4.5%	6.3%
African American	5.2%	0.2%	6.3%
White	13.3%	0.8%	21.6%
Asian American	1.3%	0.1%	1.5%
Other	2.5%	0.4%	3.6%
<b>Where Do you Cash Your Paycheck?</b>			
Grocery Store	10.8%	20.0%	7.7%
Check Cashing Outlet	6.6%	7.4%	5.9%
Bank	44.4%	45.0%	43.6%
Credit Union	8.5%	3.3%	13.4%
Direct Deposit	24.1%	15.2%	31.3%
Financial Acct (Bank + CU + Direct Deposit)	71.5%	59.9%	80.1%
Other	3.7%	5.8%	2.7%
<b>Do You Use Money Orders To Pay Bills?</b>			
Yes + Sometimes	42.4%	44.0%	44.0%
No	49.2%	45.1%	50.7%
<b>Have You Heard of IDAs?</b>			
Yes	11.3%	9.8%	11.8%
No	78.7%	77.3%	80.7%
<b>Have You Participated in Savings Circles?</b>			
Yes	2.9%	4.5%	2.0%
No	87.9%	83.6%	91.5%
Max Amount	\$5,000	\$5,000	\$5,000
Total Savings	\$68,061	\$22,547	\$18,958
<b>Do You Lend to or Borrow From Family Members in Emergencies?</b>			
Yes + Sometimes	28.3%	34.0%	23.3%
No	66.4%	57.4%	71.7%
<b>Do You Send Money to Family Members Not Living w/You?</b>			
Yes + Sometimes	42.8%	34.7%	46.3%
No	49.0%	56.6%	47.8%
<b>Do You Have a Savings Account?</b>			
Yes	34.5%	30.1%	44.7%
No	32.3%	33.7%	43.6%
Max Amount	\$250,000	\$10,000	\$250,000
Total Savings	\$1,332,215	\$72,985	\$1,259,230

Table 4. Financial Behaviors and Decisions Survey, TY 2007—Continued

	Border n=7377	Spanish Survey n=1871	English Survey n=4020
<b>Have You Ever Used Your Tax Refund For:</b>			
Down Payment on a Home	3.5%	4.8%	3.8%
Down Payment or Purchase of Car/Truck	12.6%	9.3%	15.1%
Home Appliance (washer/dryer/etc.)	10.3%	11.3%	11.1%
Computer	6.5%	7.2%	6.2%
Furniture	11.0%	10.0%	12.5%
Green Card/Immigration Fees for Family Members	2.1%	4.1%	1.5%
Property Taxes	8.1%	11.1%	8.8%
Medical Bills	11.1%	11.1%	12.5%
Auto Insurance	8.4%	11.2%	9.0%
Small or Microbusiness/Self-Employment Activities	1.1%	1.7%	1.0%
Personal Bills	45.0%	35.9%	48.0%
School Expenses for yourself or dependent	8.8%	7.7%	9.6%
Pay Off Pay Day Loan	3.2%	3.7%	3.3%
Savings	8.0%	4.0%	9.6%
Other			
<b>Would You Like to Know More About:</b>			
Buying a Home	14.0%	12.8%	15.2%
Car/Truck Loans	7.9%	7.9%	8.4%
Credit Cards/Debit Cards	5.9%	5.8%	5.5%
Property Taxes	4.8%	6.8%	4.9%
Children's Savings Accounts	6.4%	6.7%	6.0%
Bank/Credit Union Account	4.1%	5.1%	4.0%
Credit/Budgeting	6.1%	6.5%	5.7%
Small or Microbusiness/Self-Employment	5.5%	7.1%	5.3%
Matched Savings Accounts/IDAs	10.1%	16.0%	7.3%
Financial Aid (Student Loans/Grants) for School	11.3%	10.9%	10.7%
Retirement Accounts	7.6%	8.7%	7.3%
Other			
<b>Residential Status:</b>			
Home Owner	29.4%	45.8%	29.3%
Homeowner w/Mortgage	14.5%	21.9%	14.9%
Homeowner w/out Mortgage	8.1%	12.3%	8.2%
Mobile Home w/Mortgage	3.6%	7.1%	2.9%
Mobile Home w/out Mortgage	3.5%	5.2%	3.6%
Renter	40.8%	31.6%	36.2%
Average Years of Education	11	9.7	12
Average Age	45.4	47.5	46.1
<b>W2s Used To File Taxes:</b>			
1	55.1%	52.2%	54.8%
2+	43.6%	46.2%	43.2%

Source: FABN Survey, Tax Year 2007, data collected in TX, NM, AZ, and CA.

**Table 5. FABN Financial Behaviors and Decisions Survey, Summary Statistics of Logit Model Variables, 2004–2007**

	<b>TY 2004 Border n=4550</b>	<b>TY 2005 Border n=7068</b>	<b>TY 2006 Border n=6450</b>	<b>TY 2007 Border n=7377</b>
<b>Dependent Variables:</b>				
<b>Avg Financial Acct</b>	.823	.839	.790	.781
<b>Std Dev Fin Acct</b>	.382	.367	.408	.413
<b>Avg Home Ownership</b>	--	.441	.347	.416
<b>Std Dev Hm Owner</b>	--	.497	.476	.493
<b>Avg. Kids Saving Acct</b>	.09	.17	.11	.12
<b>Std Dev Kids Savings Acct</b>	.279	.374	.310	.323
<b>Avg IDAs</b>	.16	.27	.18	.19
<b>Std Dev IDAs</b>	.366	.444	.383	.390
<b>Regressors:</b>				
<b>Avg No. Dependents</b>	1.9	1.17	1.09	1.04
<b>Std Dev No. Depends.</b>	1.368	1.287	1.339	1.242
<b>Avg Years of Education</b>	11.2	11.3	10.5	11.3
<b>Std Dev Yrs Educ</b>	3.87	3.84	4.35	3.54
<b>Avg Spanish Resp</b>	.24	.28	.33	.25
<b>Std Dev Spanish Resp</b>	.436	.450	.500	.466
<b>Avg Lend</b>	.201	.270	.452	.283
<b>Std Dev Lend</b>	.402	.444	.498	.450
<b>Average AGI</b>	\$12,210	\$13,842	\$13,281	\$14,868
<b>Std Dev AGI</b>	\$10,179	\$11,381	\$12,079	\$12,683
<b>Avg Federal Refund</b>	\$1,335	\$1,607	\$1,232	\$1,537
<b>Std Dev Fed Refund</b>	\$1,631	\$1,820	\$1,677	\$1,853

Source: Frontera Asset Building Network, Regional Data, for Tax Years 2004, 2005, 2006, and 2007 collected in Texas, New Mexico, Arizona, and California rural metrosites.

Not surprisingly, Years of Education are important as are respondents' AGI and Federal Refund Amount in contributing to understanding the usage of financial accounts with mainstream financial institutions. Spanish language has a negative impact on the probability of using a financial institution, and, again, this is not surprising, given the few financial institutions with cultural competencies in serving multilingual communities. One issue that points to further research due to intergenerational significance of teaching youth familiarity with mainstream financial institutions and a level of comfort with financial products and services is the negative impact of the Number of Dependents on the probability of Using a Financial Account.

**Table 6. Logit Regression, Dependent Variable = Financial Account**

	<b>TY 2004 Model 1 n = 2012 Dep Var = Fin Acct LR(0-slopes): 150.05</b>	<b>TY 2005 Model 1 n=2007 Dep Var = Fin Acct LR(0-slopes): 151.44</b>	<b>TY 2006 Model 1 n=1962 Dep Var = Fin Acct LR(0-slopes): 266.39</b>	<b>TY 2007 Model 1 n=1725 Dep Var = Fin Acct LR(0-slopes): 166.72</b>
<b>Constant</b>	.4810 (2.29)	.5387 (2.18)	-.0840 (-.3797)	.4854 (2.04)
<b>AGI</b>	.000052 (6.18)	.000065 (7.47)	.00003 (5.07)	.00005 (7.44)
<b>Fed Refund Amt</b>	.00017 (3.11)	.00014 (2.82)	.00023 (4.84)	.00011 (2.56)
<b>Lend</b>	-.1129 (-.727)	-.2729 (-2.02)	-.0588 (-.4827)	-.3599 (-2.90)
<b>Home Owner</b>	—	.3894 (2.78)	.5723 (4.53)	.1967 (1.60)
<b>Education</b>	.0727 (4.72)	.0384 (2.12)	.0961 (5.84)	.0435 (2.45)
<b>No Dependents</b>	-.0761 (-1.27)	-.1712 (-3.09)	-.1973 (-3.98)	-.1915 (-3.27)
<b>Spanish Survey</b>	-.7641 (-5.18)	-.3767 (-2.66)	-.4125 (-2.95)	-.6839 (-5.31)

t-statistics in parentheses; TSP Version 5.0 was utilized in empirical analysis of models.

**Table 7. Logit Regression, Dependent Variable = Home Owner**

	<b>TY 2004 Model 2 n = 1386 Dep Var = HOwner</b>	<b>TY 2005 Model 2 n=2029 Dep Var = HOwner LR(0-slopes): 196.90</b>	<b>TY 2006 Model 2 n=1975 Dep Var = HOwner LR(0-slopes): 136.00</b>	<b>TY 2007 Model 2 n=1736 Dep Var = HOwner LR(0-slopes): 82.77</b>
<b>Constant</b>	—	-1.19 (-5.54)	-1.132 (-5.79)	-.7234 (-3.45)
<b>AGI</b>	—	.000039 (8.48)	.00003 (6.22)	.00002 (5.526)
<b>Fed Refund Amt</b>	—	-.000006 (-.0204)	.00008 (2.58)	.00002 (.782)
<b>Number of Depend</b>	—	.0325 (.7487)	-.0430 (-1.04)	-.0191 (-.377)
<b>Education</b>	—	-.0359 (-2.56)	-.0348 (-2.55)	-.0089 (-.598)
<b>Financial Acct</b>	—	.3819 (2.79)	.5424 (4.33)	.2101 (1.727)
<b>Spanish Survey</b>	—	.8902 (8.49)	.6368 (5.91)	.6151 (5.822)

t-statistics in parentheses; TSP Version 5.0 was utilized in empirical analysis of models.

This result signals an important gap in passing on financial literacy/usage skills to offspring and indicates the importance of financial and tax education outreach to limited-English-speaking workers and low-wealth, isolated communities.

Model 2—Being a Homeowner (Homeowner with Mortgage + Homeowner without Mortgage + Mobile Homeowner with Mortgage + Mobile Homeowner without Mortgage)

$\text{Pr}(\text{Being a Homeowner} \mid \text{Tax Filer Border Resident}) =$   
Constant + Adjusted Gross Income + Amount of Federal  
Tax Return + Number of Dependents + Years of Educa-  
tion + Use a Financial Account + Used Spanish Version  
of Survey +  $\varepsilon$

Results from the 3 years of data collected on Home Ownership status indicate that Adjusted Gross Income and Spanish Language capacity have positive impacts on the probability of Being a Homeowner. Additionally, for Tax Years 2005 and 2006, using a financial account had a positive impact while Years of Education had a negative impact. At first glance, these results appear to be counterintuitive: Spanish language predominance should have a negative impact on the probability of being a homeowner while educational attainment should have a positive relationship to the probability of owning a home. In border communities with low home values and high Spanish language usage combined with low educational attainment rates (9.7 years), home ownership remains “the” family-oriented life-goal, and low home values make home ownership attainable. Indeed, in *colonias* (unincorporated townships) along the U.S.-Mexico border, median home values range from \$8,000 to \$34,000 (and may be lower at this juncture).<sup>12</sup> For other English-survey border respondents with higher educational attainment, the American Dream may be embodied by a “higher priced” home which may be unattainable, given the limited high-wage employment opportunities in the border region.



Model 3—Interest in Knowing More about Kids Savings Accounts

$$\begin{aligned} \text{Pr(Kids Saving Accounts | Tax Filer Border Resident)} = & \\ & \text{Constant} + \text{Adjusted Gross Income} + \text{Amount of Federal} \\ & \text{Tax Return} + \text{Years of Education} + \text{Number of Dependents} \\ & + \text{Used Spanish Version of Survey} + \varepsilon \end{aligned}$$

**Table 8. Logit Regression Models, Dependent Variable = Interest in Kids Savings Acct**

	TY 2004 Model 3 n = 1386 Dep Var = KidsSav LR(0-slopes): 48.67	TY 2005 Model 3 n=1847 Dep Var = KidsSav LR(0-slopes): 105.92	TY 2006 Model 3 n=1880 Dep Var = KidsSav LR(0-slopes): 85.90	TY 2007 Model 3 n=1482 Dep Var = KidsSav LR(0-slopes): 66.69
<b>Constant</b>	−3.687 (−8.56)	−2.5409 (−9.61)	−2.965 (−10.35)	−3.277 (−8.65)
<b>AGI</b>	−.00002 (−1.80)	−.000007 (−1.14)	.000001 (.1868)	.000007 (1.10)
<b>Fed Refund Amt</b>	.00026 (3.89)	.00024 (6.24)	.000212 (5.46)	.00015 (3.34)
<b>Education</b>	.0417 (1.39)	.0202 (1.05)	.0416 (1.97)	.0296 (1.04)
<b>Number of Depend</b>	.1861 (2.17)	.1951 (3.64)	.1695 (3.12)	.2992 (3.82)
<b>Spanish Survey</b>	.2608 (1.09)	.0693 (.491)	−.0161 (−.1011)	−.0920 (−.505)

t-statistics in parentheses; TSP Version 5.0 was utilized in empirical analysis of models.

The Amount of Federal Tax Return and the Number of Dependents contribute positively to the probability of wanting to know more about Kids Savings Accounts, whereas Spanish survey usage, Years of Education, and Adjusted Gross Income had no significant impact. These results imply that access to tax education and participation in tax filing for families with children can provide “a window” for significant outreach and educational campaigns on the benefits of using tax season as an opportunity to inform border residents and communities about future planning for children’s educational opportunities.

Model 4—Interest in Knowing More about Individual Development Accounts (IDAs)

$$\text{Pr(IDAs | Tax Filer Border Resident)} = \text{Constant} + \text{Adjusted Gross Income} + \text{Amount of Federal Tax Return} + \text{Years of Education} + \text{Number of Dependents} + \text{Used Spanish Version of Survey} + \varepsilon$$

**Table 9. Logit Regression Models, Dependent Variable = Interest in IDAs**

	<b>TY 2004 Model 4 n = 1389 Dep Var = IDAs LR(0-slopes): 100.92</b>	<b>TY 2005 Model 4 n=1848 Dep Var = IDAs LR(0-slopes): 179.33</b>	<b>TY 2006 Model 4 n=1882 Dep Var = IDAs LR(0-slopes): 85.45</b>	<b>TY 2007 Model 4 n=1481 Dep Var = IDAs LR(0-slopes): 93.73</b>
<b>Constant</b>	−3.36 (−10.43)	−2.28 (−10.32)	−2.4886 (−11.29)	−2.974 (−10.19)
<b>AGI</b>	.000008 (1.07)	.00001 (2.05)	.000006 (1.34)	.000016 (3.06)
<b>Fed Refund Amt</b>	.000049 (.919)	.00011 (3.25)	.00011 (3.13)	.000055 (1.42)
<b>Education</b>	.071 (3.24)	.0339 (2.13)	.0432 (2.72)	.0522 (2.46)
<b>Number of Depend</b>	.004 (1.72)	.0309 (.647)	.000036 (.00078)	.1079 (1.69)
<b>Spanish Survey</b>	1.45 (8.55)	1.324 (11.19)	.9710 (7.43)	.9917 (7.02)

t-statistics in parentheses; TSP Version 5.0 was utilized in empirical analysis of models.

The empirical findings from Model 4 provide us with evidence that a combination of Years of Education and Spanish language survey usage positively impacts the probability of wanting to know more about IDAs. In addition, in Tax Years 2005 and 2006, the Amount of the Federal Tax Refund also contributed positively to respondents wanting to know more about IDAs. As with the findings from the logit model for Kids Savings Accounts, a “window” presents itself for intensive educational outreach during tax season in isolated and hard-to-reach communities about participating in such programs as IDAs. The key issue is bringing such programs to border communities, provided participation is predicated on exposure to awareness and education campaigns.

Part of the slowness for IDA programs to gain traction in border communities is related to the lack of “traditional” work income flows. Many of the border residents participating in the surveys have seasonal and erratic income flows, which hinder participation in IDA programs unless the specifics of the program allow for “lump sum” deposits in lieu of time-oriented deposits (e.g., weekly or monthly savings contributions). Another factor that continues to be an impediment to successful IDA program participation and completion by many border families has to do with “allowed goals and usage.” Perhaps rethinking the usual “three” goals of (1) home ownership down payment, (2) tuition/expenses for higher education, and (3) small/microbusiness capitalization, to allow other practical and pragmatic goals for low-wealth families, such as “used car purchases” or “computer purchases,” is warranted.

## Future Research Issues

Financial and tax education outreach initiatives and program services, such as VITA sites in hard-to-reach and often “left-behind” communities, emphasize the importance of inclusive and learning-oriented collaborations. Despite the focus on incentivizing “savings” behaviors among the working poor as part of the asset building policy agenda, evidence is presented here that hard-to-reach communities are engaged in asset building behaviors below the research radar. Indeed, the empirical evidence presented here indicates strategic use of Federal tax refunds and captures the economic mobility aspirations displayed by limited-English and low-wealth border families. This contradicts the media image stereotypes of low-income families and individuals receiving “lump-sum” refunds and engaging in ‘instant gratification’ consumer spending. The presence and support of VITA initiatives along with low-income tax clinics that border families can access provide “windows of opportunity” for ongoing outreach and education awareness campaigns that help families better understand their tax responsibilities and how filing taxes provides them with long-run benefits that preserve their hard-won assets.

Research from inclusive community development initiatives in New Zealand, Australia, Asia, Africa, and Canada among indigenous populations and local communities indicates that, despite isolation and public investment neglect, communities treasure their cultural traditions and rely on cultural narratives and experiential knowledge as important asset leveraging and economic resiliency buffers (Findlay, 2003; Waldgrave

et al., 1996; Lassiter, 2005; McGee and Brock, 2001; and Pfohl, 2004). Foundations and government agencies seeking to provide inclusive funding and program initiatives that serve isolated and hard-to-reach communities need to remain attentive to the culturally responsive skill sets that resonate with culturally and racially diverse communities.

The accelerating impacts of globalization have increased our awareness of the interconnected consequences of a single missing support structure in one area of family well-being, creating spillover effects on total family resiliency and, consequently, community well-being. Given our tax preparation services and financial education outreach are poverty-alleviating for a growing number of working families, we must work toward understanding the centrality of tax and financial education in community development by connecting them to: (1) the cultivation and nurturing of participatory civic-engagement, (2) the growth of sustainable social, economic, and infrastructure services delivery for culturally diverse communities, and (3) the strengthening of generational knowledge for continued community resiliency and sustainability.

These issues will continue to gain importance in the community development and poverty reduction fields as we move into more insecure future economic cycles and the increased mobility of transnational families becomes more pronounced. How we deal with culturally and racially diverse legacy communities and their own valuation of community asset-building will provide a blueprint for “windows of opportunity” to provide financial and tax education outreach programs and services that engage and benefit working families and youth.

## **Acknowledgements**

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## Appendix A

### ***Frontera Asset Building Network and Action Research Feedback Chronology***

- Roundtable “learning dialogues” at university setting for border practitioners, public service representatives, foundations, and researchers (digital videography used to document entire process).
- Joint effort to identify gaps in services, research, and knowledge base.
- Pilot-research project launched with practitioners-researchers-foundations creating noninvasive survey instrument and field observation using rapid appraisal methods and frequent consultation with border CBO program officers.
- Reliance on community-based organizations to bring resident voices to the table/process: community-based staff and community residents’ assessment of survey instrument’s efficacy at the community level.
- Community stakeholders prioritizing issues to be addressed and desired outcomes “defining success metrics” from the bottom up.
- University students interning with community-based organizations: “learning ambassadors” and “student change agents.”
- Linking community stakeholder feedback to next round of survey design, survey administration, and field observations/rapid appraisal methods.
- Site visits to coalition members for Q & A, for “learning and listening” sessions; re-visiting change of priorities after midyear debriefings; and data analysis/findings shared and discussed by all stakeholders (community data forums held at each regional site).
- Learning, sharing information, and new program development, community-based organizations acting as mentors and “elders” to newer members of FABN.
- Incorporation of new knowledge for next round of data collection and research process.
- Community-based organizations use data findings in grant proposals, marketing, and fundraising, as well as rollout of new service delivery channels and outreach programs.

## **Appendix B**

For all 4 years, respondents in both Spanish and English revealed a striking degree of asset building and economic mobility aspirations in responding to the following “fill in the blank” questions in their own words. A list of responses follows:

- I. Question: Have you ever used your tax refund for (Fill in the Blank)
  - Auto insurance (included in following year’s survey, TY 2005)
  - Savings (included in following year’s survey, TY 2006)
  - To pay off pay day loan (included in following year’s survey, TY 2007)
  - To purchase cell phone/cell phone plan (included in following year’s survey, TY 2008)

Other items that were specifically indicated/written in as tax refund expenditures:

- To purchase land/lots
- To pay for my brother’s/sister’s/niece’s/nephew’s/grandchildren’s school tuition and/or books
- To pay for a baptism/confirmation/*quinceñera* (coming of age celebration)/wedding
- Dentist/eye glasses
- Bankruptcy
- Funeral
- Home construction/home improvement
- Tools/work clothes
- Moving expenses/security deposit for an apartment
- Car repairs
- To pay back borrowed money from family/friends
- Child support
- Purchase of used items for resell at *pulga* (swap meets)
- Help family members with their bills (mom/dad/sister/brother/son/daughter)



II. Question: What would you like to know more about?

(Fill in the Blank)

- Home ownership responsibilities (a separate questions on home ownership status was included in the following year's survey, TY 2005)
- Financial aid/student loans and grants for university, community college, and vocation school (included in following year's survey, TY 2006)
- Retirement accounts and planning (included in following year's survey, TY 2007)
- Credit repair (included in following year's survey, TY 2008)
- Insurance products (home, car, medical, and funeral) (included in following year's survey, TY 2008)
- Job and employment opportunities (included in following year's survey, TY 2008)

Other items that were specifically indicated as items of interest:

- GED
- Investing/certificates of deposit/mutual funds
- Legal help with student loan repayment and back pay for child support
- Home repair
- Help with taking care of elderly parents and disabled family members
- Understanding tax credits/tax credits for education expenses (student loans)
- How to get out of debt
- How to save more/how to save for school expenses
- Land/lot purchases

## Endnotes

- <sup>1</sup> The term “*frontera*” is the Spanish word for border.
- <sup>2</sup> The term “*colonia*” is the Spanish word for neighborhood or community. However, the term *colonia* conveys a unique meaning along the U.S.-Mexico border. *Colonias* are areas of nonincorporated townships that may lack basic water and sewage systems, paved roads, safe and sanitary housing conditions, phone service, and school and public health facilities (Federal Reserve Bank of Dallas, 2001). Similar unincorporated towns appear in the Appalachian region.
- <sup>3</sup> For a deeper understanding of *colonia* cultural life and socioeconomic characteristics, see Vélez-Ibañez, C. (2004). “Regions of Refuge in the United States: Issues, Problems and Concerns for the Future of Mexican-Americans in the United States,” *Human Organization*, Volume 63, Number 1, pp. 1-20 and Esparza, A. and A. Donelson (2008), *Colonias in Arizona and New Mexico: Border Poverty and Community Development Solutions*, (University of Arizona Press) Tucson, AZ.
- <sup>4</sup> Yankelovich (2001) and Rambaldi et al. (2006) provide evidence that all productive collaboration begins with the reflective and sharing aspects of dialogue and conversation among participating community stakeholders. Additionally, listening and learning capacities have been neglected in program evaluation aspects of community development, as well as in the policy-oriented creation and identification of community development, success metrics, and indicators.
- <sup>5</sup> See Appendix A for a full description of the dynamic feedback process all FABN members engage in through the action research cycle.
- <sup>6</sup> In high density immigrant or immigrant-memory communities (as known as ethnic or cultural legacy communities), informal neighborhood savings circles take on a variety of names. In Latino communities, they are known as “*cestras*,” “*tandas*,” “*cundinas*,” “*rondas*,” or “*sans*.”
- <sup>7</sup> The regional SPEC offices were instrumental in providing support services that allowed individual community-based organizations to reach larger constituents and serve more community residents often left behind and considered by mainstream government agencies extremely difficult to serve.
- <sup>8</sup> The response rates are calculated against the overall e-filing and paper filing counts at each site. This allows for a quality control approach to the FABN Financial Behaviors Survey count. For example, if one individual site had a

total e-filing season of 450 filers and a FABN paper survey response of 300, the calculated survey response rate for that particular site is 66.6 percent.

- <sup>9</sup> Many of the community-based organizations held grievances toward university researchers and external evaluators for being invasive and bringing “outside” surveys into communities as opposed to working with community-based organizations in designing surveys that would capture the types of information that would be useful for community-based organizations to employ in creating new programs and for providing improved services to residents based on resident responses/voices as captured in the surveys. In working with community-based organizations, I believe that social science research has focused on a deficit-oriented lens and in so doing, has created a resistance among community advocates, especially in hard-to-reach communities. Knowing about community resiliencies and hidden assets is of equal importance in bringing education and awareness campaigns into isolated and left-behind communities.
- <sup>10</sup> The survey for Tax Year 2004 did not include a question on homeownership status
- <sup>11</sup> Individual Development Accounts (IDAs) are programs that encourage low-income families and individuals to save. The community-based organization offering the IDA program to community residents partners with a financial institution to create savings account for the IDA participant. A one-to-one match is generally applied: For every dollar the participant saves, a corresponding dollar is deposited in the IDA until a particular savings goal is reached, usually within an 18-month period. The total amount is then used for a down payment on a home, to open a small business, or to enroll in postsecondary education (a community college or university program).
- <sup>12</sup> American Community Survey, Starr County, Texas, \$11,248 (3-year estimate, 2005-2007), B992519. IMPUTATION OF VALUE-Universe: OWNER-OCCUPIED HOUSING UNITS.

**4**



## **Poster Session**

**Nuriddin ♦ Jezek ♦ Fernandez**

# Getting to Know U.S. Taxpayers: Selected Tax Data by Occupation and Industry, Tax Year 2005

*Terry Nuriddin, Mary Jezek, and Mario Fernandez,  
Internal Revenue Service*

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**O**ur main objective was to help meet the research community's need for demographically profiled statistical data by providing industry codes and occupation codes for taxpayers in the Statistics of Income (SOI) Division individual income tax sample data files.

IRS's history of publishing taxpayer occupation data began with its first publication on statistics for Calendar Year 1916. The statistics published for "Personal Returns" included income distributions by occupation (1918 Statistics of Income, p. 7). A little more than 50 years later, the IRS began conducting independent and joint studies to determine the reliability of tax return occupation data.<sup>1</sup> By late 1979, the IRS had concluded that the individual tax return could be a dependable resource for occupational data (Koteen and Grayson, 1979).

In the early 1980s, the SOI Division announced the impending arrival of tax data by occupation classification (Sailer, Orcutt, and Clark, 1980). Having realized the potential benefit in obtaining the Form W-2 (Wage and Tax Statement) wage data for each taxpayer and in "creating a computerized dictionary of occupation titles," SOI envisioned the possibility of providing the research community with an occupational data supplement for the basic individual program. These data would be derived from a database comprised not only of tax return data but also demographic information such as occupation classification, industry sector, gender, "and possibly ... age and race" for each taxpayer (Blacksin and Plowden, 1981, p. 586).

SOI pursued creating the database throughout the 1980s, reporting periodically on its progress and employment-related research projects.<sup>2</sup> In the 1990s, SOI created "a more elaborate database" for Tax Year 1993 (Sailer and Nuriddin, 1999, p. 33). The database's demographic content was

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<sup>1</sup> These research experiments were conducted during the 1960s and 1970s, and results were reported in the series of notes for the Linked Administrative Statistical Sample Project sponsored by the Social Security Administration.

<sup>2</sup> Suggested readings include:

Crabbe, Patricia; Peter Sailer; and Beth Kilss (1983), "Occupation Data from Tax Returns: A Progress Report," Statistics of Income and Related Administrative Record Research, Internal Revenue Service, pp. 59-64.

expanded to include an occupation code and industry code for each taxpayer. SOI ended the century with an offer for the research community to use the enriched administrative database (Sailer and Nuriddin, 1999).

## Data Design

### The File—Tax Years 2003, 2004, and 2005

We decided to merge the SOI Taxpayer Industry and Occupation Study (OCC) files with an abridged version of the corresponding SOI Individual Sole Proprietorship (INSOLE) files for the most recent tax years available for both files. The INSOLE file is a stratified probability sample of individual income tax returns. Sampling information for these tax years can be found in the respective IRS Publication 1304.<sup>3</sup>

The industry codes in the OCC files are assigned using the Employer Identification Number (EIN), or the employer's name from the Form W-2.<sup>4</sup> (See Figure 1.) Over time, improved technologies have enabled SOI to implement extensive validation procedures. SOI can now generate industry codes by matching the EIN or business name to an Industry Coding Dictionary (ICD). SOI has developed several ICDs by compiling valid sets of an EIN or business name and the associated industry code. The ICDs use industry data from previously industry-coded OCC files, partnership files (based on Form 1065), and charitable organization files (based on Form 990). After applying an industry code to the OCC file, SOI validates it using a current NAICS Codes listing.

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Sailer, Peter; Barry Windheim; and Mario Fernandez (1990), "Some Results from the 1979-1983 Occupational Mortality Study," *Proceedings of the Section on Survey Research Methods*, American Statistical Association Proceedings, pp. 63-68.

<sup>3</sup> See *Statistics of Income: Individual Income Tax Returns 2003*, Department of the Treasury, Internal Revenue Service; *Statistics of Income: Individual Income Tax Returns 2004*, Department of the Treasury, Internal Revenue Service; and *Statistics of Income: Individual Income Tax Returns 2005*, Department of the Treasury, Internal Revenue Service.

<sup>4</sup> Overall, the basic processing for the OCC files in this project is similar to the process described for Tax Year 1993 in the 1999 paper by Sailer and Nuriddin. For Tax Year 1993, industry codes were based on the 4-digit 1987 Standard Industrial Classification (SIC) Codes. These SIC Codes were converted to 1997 6-digit North American Industry Classification System (NAICS) Codes. The 1997 NAICS Codes were subsequently updated to 2002 NAICS Codes. The industry data in this paper are based on the 2002 NAICS Codes.

Once the industry coding is completed, the Standard Occupation Classification (SOC) Codes are generated.<sup>5</sup> In the OCC file, the occupation codes are based on taxpayers' occupation entries as reported on the Form 1040. (See Figure 2.) For all Form 1040 returns sampled, the first 20 characters of the occupational title as reported in the "Your occupation" box are extracted from the tax return. This information denotes the occupation of the primary taxpayer. For those returns filed jointly by a taxpayer and his or her spouse, the first 20 characters of the occupational title entry in the "Spouse's occupation" box are also extracted. This entry denotes the occupation of the secondary taxpayer.

To assign an occupation code, these taxpayer occupation titles are then matched to those title entries already in the Master Occupation-Coding Dictionary (MOD).<sup>6</sup> Occupation titles not matching to the MOD are researched

**Figure 1: Resource Document for NAICS Code**

a Control number		22222		Void <input type="checkbox"/>		For Official Use Only ▶ OMB No. 1545-0008	
b Employer identification number (EIN)				1 Wages, tips, other compensation		2 Federal income tax withheld	
c Employer's name, address, and ZIP code				3 Social security wages		4 Social security tax withheld	
				5 Medicare wages and tips		6 Medicare tax withheld	
				7 Social security tips		8 Allocated tips	
d Employee's social security number				9 Advance EIC payment		10 Dependent care benefits	
e Employee's first name and initial		Last name		11 Nonqualified plans		12a See instructions for box 12	
f Employee's address and ZIP code				13 Statutory employee <input type="checkbox"/> Retirement plan <input type="checkbox"/> Two-party split pay <input type="checkbox"/>		12b	
				14 Other		12c	
						12d	
15 State		Employer's state ID number		16 State wages, tips, etc.		17 State income tax	
				18 Local wages, tips, etc.		19 Local income tax	
						20 Locality name	
Form <b>W-2</b> Wage and Tax Statement				2005		Department of the Treasury—Internal Revenue Service For Privacy Act and Paperwork Reduction	

<sup>5</sup> SOI also uses an "other occupation" category to classify nonworking taxpayers (such as "STAY AT HOME DAD"); working taxpayers whose jobs cannot be determined from the text provided (such as "W-2 EMPLOYEE"); and INVESTORS, a category not included in traditional employment tabulations.

<sup>6</sup> The MOD is a repository comprising taxpayer occupational entries edited from tax returns and assigned occupation codes during previous processing years. For tax years in this research project, the MOD contains the 2000 Standard Occupation Classification (SOC) Codes and the SOI codes assigned to denote investors, unclassified persons, non-labor force groups, and deceased persons. It also contains the 2002 North American Industry Classification System (NAICS) Codes and the SOI code assigned to an unclassifiable entity.

Figure 2: Resource Document for SOC Code

<b>Sign Here</b> Joint return? See page 17. Keep a copy for your records.	Under penalties of perjury, I declare that I have examined this return and accompanying schedules and statements, and to the best of my belief, they are true, correct, and complete. Declaration of preparer (other than taxpayer) is based on all information of which preparer has knowledge.			
	Your signature		Date	Your occupation
	Spouse's signature. If a joint return, both must sign.		Date	Spouse's occupation
<b>Paid Preparer's Use Only</b>	Preparer's signature		Date	Check if self-employed <input type="checkbox"/>
	Firm's name (or yours if self-employed), address, and ZIP code		EIN	Phone no.

and then subsequently assigned an occupation code. (See Sailer and Nuriddin, 1999, for more details.) After generating occupation codes, SOI validates the file using a current SOC Codes listing.

To test the quality of the OCC file once occupation and industry classifications have been assigned to each taxpayer in the sample, SOI compares the IRS employment data estimates to those produced by the Bureau of Labor Statistics (BLS).<sup>7</sup> Using these practical standards for comparisons, SOI has found the IRS employment data to be reasonable (Sailer and Nuriddin, 1999).

## The Methodology

The new datasets comprise fixed-length records containing 35 selected variables from the INSOLE file, 14 variables from the OCC file, and 6 generated indicator fields that represent data quality checks for the merge procedures. We also overlap selected INSOLE and OCC variables to measure data quality. About 60 percent of returns in each dataset comprise nonjoint returns, representing primary taxpayers.<sup>8</sup> On joint returns, the taxpayers decide which spouse will file as primary or secondary.<sup>9</sup>

<sup>7</sup> For Tax Year 2005, the BLS occupation data (SOC Code) reference would be the online Statistical Abstract Table No. 602. Employed Civilians by Occupation, Sex, Race, and Hispanic Origin: 2005 at <http://www.census.gov/prod/2006pubs/07statab/labor.pdf>. The BLS industry data (NAICS Code) reference would be the BLS employment estimates derived from the Current Employment Statistics survey data available for creating customized at <http://data.bls.gov/cgi-bin/dsrv>.

<sup>8</sup> Non-joint returns include taxpayers who file as single, married filing separately, head of household or surviving widow(er). Joint returns represent married taxpayers filing jointly.

<sup>9</sup> The decision to file as the primary or secondary taxpayer on Form 1040, has not always been left to taxpayers filing joint returns. The space for the secondary taxpayer occupation was introduced on the 1954 individual tax return to be used by either the wife or husband of the taxpayer. The following year it was designated for wives and remained so until 1967 when the term was changed to "spouse." Except for reverting back to "wife" in 1972, the secondary space has been designated for the spouse since that time.



Additionally, because the OCC file contains data from Form W-2 information documents, which are reported on an individual basis, we are able to compare the primary taxpayer and the secondary taxpayer wage data to the tax return wage data obtained from the salaries and wages line on Form 1040. Using the gender code on the OCC file, we can evaluate wage data for males and females categorized as primary or secondary taxpayers.

This article focuses on the dataset for Tax Year 2005. Tax return items shown in the tables are classified by the occupation classification and industry sector of the primary taxpayer. This is true for both non-joint and joint returns.

Using the gender code and the wage data from Form W-2, we have found that the gender composition of these employees appears to have been split at about 49 percent female and 51 percent male for Tax Year 2005. Interestingly, the W-2 wage data for males show that they earned 63 percent of total wages reported during this time. We have also been able to observe the predominately female and male occupation classifications and the predominately female and male industry sectors as shown in Figure 3 and Figure 4.

**Figure 3: Form W-2 Data for Predominately Female and Male Occupations, Tax Year 2005**

	Percent Women	Percent Men	Average Salary
<b>Predominately Female Occupations</b>			
Healthcare Support	91	9	19,222
Personal Care and Service	81	19	16,382
Healthcare Practitioners and Technical	76	24	59,522
Education, Training, and Library	75	25	35,174
Business and Financial Operations	64	36	49,887
<b>Predominately Male Occupations</b>			
Construction and Extraction	3	97	34,609
Installation, Maintenance, and Repair	8	92	35,619
Architecture and Engineering	12	88	71,576
Military	18	82	28,390
Protective Service	22	78	42,341

(All figures are estimates based on samples.)

**Figure 4: Form W-2 Data for Predominately Female and Male Industries, Tax Year 2005**

	Percent Women	Percent Men	Average Salary
<b>Predominately Female Industries</b>			
Education and Health Services	76	24	34,876
Financial Activities	56	44	54,438
Leisure and Hospitality	55	45	20,638
<b>Predominantly Male Industries</b>			
Construction	14	86	36,901
Natural Resources and Mining	24	76	36,651
Military	25	75	35,281

(All figures are estimates based on samples.)

## Summary

Our main objective for this paper was to report on a new SOI dataset, which merges the SOI taxpayer industry and occupation file with an abbreviated version of the SOI individual sample file. In the course of doing this, we encountered several challenges and opportunities. Through our file analyses, we identified and corrected minor data anomalies.

The tabulations presented in this paper are designed to provide preliminary results of tax return data within the framework of occupation and industry categories of primary taxpayers. The tables provided show all returns filed by occupation classification or industry sector of the primary taxpayer. The non-joint return detail for these presentations is also provided.

These introductions should provide an interesting first look at tax filers in Tax Year 2005.

During our research efforts, we have discovered new data relationships to explore, and we plan to continue our analyses of the datasets. This new framework for examining tax return data by using the taxpayer occupation and industry categories should be helpful to the research community.

## Acknowledgements

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The views expressed herein are those of the authors and do not necessarily represent those of the Internal Revenue Service.

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**Table 1: Tax Year 2005, All Returns: Selected Sources of Income and Tax Items, by Occupation Classification of Primary Taxpayer<sup>1</sup>**

(All figures are estimates based on samples. Money amounts are in thousands of dollars.)

Standard Occupation Classification (SOC) Code <sup>2</sup>	Number of returns	Adjusted gross income less deficit	Salaries and wages		Taxable interest received	
			Number of returns	Amount	Number of returns	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>All returns, total</b>	<b>134,372,677</b>	<b>7,422,495,665</b>	<b>114,070,881</b>	<b>5,155,407,372</b>	<b>59,249,359</b>	<b>162,432,718</b>
Management, business, and finance occupations	16,553,331	1,907,633,464	15,188,393	1,260,007,533	9,475,114	50,835,577
Professional specialty occupations	12,594,527	1,214,378,078	11,885,479	924,081,818	7,404,567	13,660,343
Education, training, and library occupations	3,958,229	219,726,941	3,869,295	188,773,181	2,068,547	2,361,202
Arts, entertainment, sports, and media	2,861,600	179,695,589	2,546,298	139,272,212	2,506,802	2,506,802
Service occupations	10,760,295	305,400,101	9,997,529	272,409,476	2,504,266	1,515,013
Sales and office	20,017,828	1,014,864,717	18,856,362	781,264,740	7,176,151	15,184,266
Natural resources, construction, and maintenance	11,491,686	514,971,948	10,291,316	432,053,135	3,952,854	3,412,698
Production, transportation, and material moving	16,190,698	613,545,170	15,614,882	560,068,581	4,469,338	2,613,280
Military specific occupations	1,479,690	50,789,694	1,460,555	49,430,799	469,982	172,365
Investors	183,741	59,435,863	86,059	8,275,961	140,657	5,466,726
Unclassified occupations	11,778,406	462,334,800	10,095,443	335,170,428	3,941,447	9,255,519
Nonlabor force	26,338,192	874,375,192	14,129,633	203,437,913	16,166,048	54,856,739
Deceased	164,464	5,344,108	49,637	1,161,595	129,162	592,188
<b>Nonjoint returns, total</b>	<b>81,866,948</b>	<b>2,474,493,588</b>	<b>69,218,194</b>	<b>1,839,510,094</b>	<b>25,836,670</b>	<b>56,508,283</b>
Management, business, and finance occupations	8,194,860	473,423,160	7,482,450	352,135,413	3,315,311	11,139,104
Professional specialty occupations	6,491,947	346,230,249	6,116,911	293,403,963	2,767,450	3,350,374
Education, training, and library occupations	2,588,975	93,960,337	2,525,628	82,296,899	1,084,111	1,059,310
Arts, entertainment, sports, and media	1,700,067	70,079,466	1,462,948	54,254,484	614,223	970,196
Service occupations	8,259,822	153,905,713	7,604,672	139,070,653	1,280,270	744,271
Sales and office	13,711,778	389,803,196	12,983,417	330,806,405	3,306,652	4,464,334
Natural resources, construction, and maintenance	5,475,264	146,591,505	4,756,724	129,312,188	1,004,444	685,752
Production, transportation, and material moving	9,329,327	223,283,504	8,962,019	210,624,388	1,499,877	649,703
Military specific occupations	786,733	16,863,687	775,268	16,618,248	172,145	56,890
Investors	106,134	20,161,983	43,153	1,768,901	72,620	2,002,984
Unclassified occupations	8,034,075	205,477,695	6,855,839	153,531,493	1,967,961	4,295,900
Nonlabor force	17,090,579	332,620,972	9,630,134	75,215,634	8,675,938	26,818,088
Deceased	97,387	2,092,121	19,031	471,425	75,668	271,377
<b>Joint returns, total</b>	<b>52,505,729</b>	<b>4,948,002,077</b>	<b>44,852,687</b>	<b>3,315,897,278</b>	<b>33,412,689</b>	<b>105,924,435</b>

Footnotes at end of table.

**Table 1: Tax Year 2005, All Returns: Selected Sources of Income and Tax Items, by Occupation Classification of Primary Taxpayer<sup>1</sup>—Continued**

(All figures are estimates based on samples. Money amounts are in thousands of dollars.)

Standard Occupation Classification (SOC) Code <sup>2</sup>	Net income		Business or profession		Net loss		Basic standard deduction	
	Number of returns (7)	Amount (8)	Number of returns (9)	Amount (10)	Number of returns (11)	Amount (12)	Number of returns (11)	Amount (12)
<b>All returns, total</b>	<b>15,748,895</b>	<b>314,717,430</b>	<b>5,308,432</b>	<b>-45,016,374</b>	<b>84,841,222</b>	<b>564,186,053</b>		
Management, business, and finance occupations	2,294,983	59,433,008	967,382	-12,426,410	6,954,127	49,249,041		
Professional specialty occupations	1,858,566	73,689,253	675,639	-5,305,249	5,013,496	34,570,959		
Education, training, and library occupations	462,813	5,032,914	211,139	-1,151,574	2,044,595	13,308,697		
Arts, entertainment, sports, and media	643,075	12,827,775	269,485	-1,653,099	1,556,457	10,269,960		
Service occupations	1,429,578	14,580,153	290,495	-1,677,048	8,373,158	53,212,644		
Sales and office	2,429,070	64,795,428	925,598	-8,550,747	12,856,380	82,292,476		
Natural resources, construction, and maintenance	2,366,247	37,023,767	557,498	-4,282,743	7,261,091	54,196,904		
Production, transportation, and material moving	1,502,701	17,299,099	523,358	-3,535,058	11,736,831	84,655,587		
Military specific occupations	43,219	264,813	29,888	-234,082	1,174,681	8,409,989		
Investors	20,455	1,100,894	15,361	-364,472	64,480	446,214		
Unclassified occupations	1,389,112	18,828,798	389,436	-3,190,679	8,325,368	54,891,913		
Nonlabor force	1,301,423	9,758,816	451,898	-2,639,456	19,364,054	117,859,790		
Deceased	7,653	82,712	1,255	-5,757	116,504	821,879		
<b>Nonjoint returns, total</b>	<b>6,704,243</b>	<b>91,365,246</b>	<b>1,954,909</b>	<b>-15,836,656</b>	<b>61,164,749</b>	<b>327,684,817</b>		
Management, business, and finance occupations	748,406	14,393,452	326,430	-4,021,513	4,661,373	26,350,553		
Professional specialty occupations	579,910	16,024,513	238,606	-1,854,894	3,566,845	20,116,464		
Education, training, and library occupations	215,961	1,315,691	97,762	-523,568	1,621,733	9,082,785		
Arts, entertainment, sports, and media	350,453	5,275,605	140,326	-968,073	1,127,891	5,989,641		
Service occupations	984,510	8,849,866	143,976	-752,605	7,085,803	40,350,429		
Sales and office	1,054,936	20,057,564	408,603	-3,430,540	10,511,437	58,878,943		
Natural resources, construction, and maintenance	881,243	10,092,491	148,914	-1,125,508	4,166,738	23,292,626		
Production, transportation, and material moving	600,501	5,422,211	157,949	-1,143,826	7,731,355	44,663,985		
Military specific occupations	9,540	20,659	4,770	-17,946	703,141	3,700,922		
Investors	6,344	243,004	6,123	-140,704	45,998	261,410		
Unclassified occupations	727,433	7,369,171	160,139	-1,308,075	6,296,758	34,642,497		
Nonlabor force	542,047	2,286,991	120,411	-547,758	13,577,024	60,009,978		
Deceased	2,959	14,028	900	-1,646	68,653	344,584		
<b>Joint returns, total</b>	<b>9,044,652</b>	<b>223,352,184</b>	<b>3,353,523</b>	<b>-29,179,718</b>	<b>23,676,473</b>	<b>236,501,236</b>		

Footnotes at end of table.

**Table 1: Tax Year 2005, All Returns: Selected Sources of Income and Tax Items, by Occupation Classification of Primary Taxpayer<sup>1</sup>—Continued**

(All figures are estimates based on samples. Money amounts are in thousands of dollars.)

Standard Occupation Classification (SOC) Code <sup>2</sup>	Total itemized deductions		Taxable income		Income tax before credits	
	Number of returns (13)	Amount (14)	Number of returns (15)	Amount (16)	Number of returns (17)	Amount (18)
<b>All returns, total</b>	<b>47,755,428</b>	<b>1,121,810,935</b>	<b>104,330,649</b>	<b>5,137,165,872</b>	<b>104,345,965</b>	<b>990,151,768</b>
Management, business, and finance occupations	9,285,816	291,144,343	14,797,334	1,509,174,498	14,804,334	338,660,907
Professional specialty occupations	7,492,096	188,310,667	11,659,292	915,355,438	11,662,571	192,625,699
Education, training, and library occupations	1,888,607	35,611,484	3,495,318	148,525,660	3,494,195	24,784,856
Arts, entertainment, sports, and media	1,257,818	29,934,525	2,415,717	125,232,828	2,416,762	24,790,321
Service occupations	2,315,579	43,624,356	7,189,823	161,000,072	7,186,570	23,905,807
Sales and office	6,948,821	157,631,870	16,010,638	685,785,853	16,017,092	129,664,241
Natural resources, construction, and maintenance	4,117,066	78,276,241	9,204,322	311,194,818	9,208,899	48,738,151
Production, transportation, and material moving	4,371,910	75,042,712	12,741,577	353,737,770	12,742,191	52,029,934
Military specific occupations	295,178	5,425,698	1,242,284	27,808,755	1,242,587	3,867,846
Investors	105,976	11,148,705	143,340	49,728,006	143,782	10,794,850
Unclassified occupations	3,225,172	68,169,449	8,330,310	290,838,412	8,331,821	50,721,148
Nonlabor force	6,407,260	136,201,325	17,011,528	555,671,855	17,005,987	89,062,950
Deceased	44,129	1,289,560	89,166	3,111,907	89,174	505,058
<b>Nonjoint returns, total</b>	<b>19,456,990</b>	<b>339,254,950</b>	<b>59,372,608</b>	<b>1,588,063,232</b>	<b>59,365,851</b>	<b>280,098,931</b>
Management, business, and finance occupations	3,359,739	70,425,146	7,110,368	359,068,077	7,113,566	74,218,488
Professional specialty occupations	2,870,665	50,932,687	5,832,610	251,059,992	5,833,468	48,306,603
Education, training, and library occupations	947,369	14,010,950	2,194,174	61,270,428	2,193,003	9,835,272
Arts, entertainment, sports, and media	534,818	10,453,941	1,369,643	49,273,157	1,369,165	9,855,106
Service occupations	1,122,242	16,373,331	5,150,050	71,551,755	5,146,062	10,031,038
Sales and office	3,056,238	50,268,879	10,414,675	237,928,387	10,416,442	39,914,493
Natural resources, construction, and maintenance	1,245,521	17,757,503	4,177,590	86,763,287	4,178,405	13,186,414
Production, transportation, and material moving	1,543,242	20,419,624	6,893,870	121,303,819	6,893,175	17,440,527
Military specific occupations	80,003	1,059,493	665,099	9,580,586	664,101	1,314,447
Investors	51,884	4,288,956	78,551	16,510,300	78,728	3,486,475
Unclassified occupations	1,575,453	27,346,970	5,378,071	121,339,168	5,377,640	20,092,084
Nonlabor force	3,044,179	55,226,724	10,061,770	201,235,943	10,055,951	32,224,819
Deceased	25,637	690,746	46,137	1,178,333	46,145	193,165
<b>Joint returns, total</b>	<b>28,298,438</b>	<b>782,555,985</b>	<b>44,958,041</b>	<b>3,549,102,640</b>	<b>44,980,114</b>	<b>710,052,837</b>

Footnotes at end of table.

**Table 1: Tax Year 2005, All Returns: Selected Sources of Income and Tax Items, by Occupation Classification of Primary Taxpayer<sup>1</sup>—Continued**

(All figures are estimates based on samples. Money amounts are in thousands of dollars.)

**Footnotes**

[1] For joint returns, the occupation classification is based on the primary taxpayer. For example, if the primary taxpayer lists his or her occupation as "police officer" (coded in Service Occupations), and the spouse is not classified in the same category, the return will be classified in the Service Occupations.

[2] Standard Occupation Classification (SOC) Codes at the major level (two-digit level) in high-level aggregation:

Management, Business, and Finance Occupations (11 and 13); Professional Specialty Occupations (15, 17, 19, 21, 23, 29) and Education, Training, and Library Occupations (25) and Arts, Entertainment, Sports, and Media (27); Service Occupations (31, 33, 35, 37, and 39); Sales and Office (41, 43); Natural Resources, Construction, and Maintenance (45, 47, 49); Production, Transportation, and Material Moving (51, 53); and Military Specific Occupations (55); and Investors (92 - Statistics of Income (SOI) Division only). SOI unclassified occupations include Government and private employees whose jobs cannot be determined (97); self-employed persons whose jobs cannot be determined (8850); and Form 1040 occupation lines which are left empty (8895) or filled in with indiscernible data (88).

SOI nonlabor force codes include retired and disabled persons (93); unemployed persons (9350); volunteers (9390); house spouses and homemakers (94); and students (95). SOI code 96 represents deceased taxpayers. For further information, visit the Bureau of Labor Statistics at [www.bls.gov/soc](http://www.bls.gov/soc).

NOTE: Detail may not add to totals because of rounding.

Source: SOI Individual Income Tax Returns, Tax Year 2005.

**Table 2: Tax Year 2005, All Returns: Selected Sources of Income and Tax Items, by Industry Sector of Primary Taxpayer**<sup>1</sup>  
 (All figures are estimates based on samples. Money amounts are in thousands of dollars.)

North American Industry Classification System (NAICS) Code <sup>2</sup>	Number of returns (1)	Adjusted Gross Income less deficit (2)	Salaries and Wages		Taxable Interest Received	
			Number of returns (3)	Amount (4)	Number of returns (5)	Amount (6)
<b>All returns, total</b>	<b>134,372,878</b>	<b>7,422,495,659</b>	<b>114,070,878</b>	<b>5,155,407,369</b>	<b>59,249,358</b>	<b>162,432,714</b>
Natural Resources and Mining	1,609,928	114,642,237	1,473,826	66,860,739	652,018	3,516,493
Construction	8,248,183	442,450,247	7,099,246	319,484,109	2,956,041	6,143,926
Manufacturing	12,951,508	917,687,168	12,857,746	771,012,760	6,059,608	9,744,405
Trade, Transportation, and Utilities	20,254,690	976,698,067	19,207,787	765,914,932	7,112,822	13,596,026
Information	2,493,600	214,051,363	2,436,119	167,752,844	1,198,350	3,001,285
Financial Activities	7,269,338	708,464,720	6,728,430	458,914,730	3,625,037	19,321,961
Professional and Business Services	17,355,382	1,109,508,573	16,199,858	809,074,983	6,898,224	17,701,750
Education and Health Services	14,346,698	760,900,052	13,819,479	616,033,547	5,877,934	6,943,401
Leisure and Hospitality	8,915,641	275,654,748	8,574,767	211,730,063	2,234,703	4,524,078
Other Services	5,937,039	221,812,160	5,054,636	165,863,922	2,159,933	3,041,427
Government	7,457,452	426,530,420	7,455,462	381,955,609	3,812,279	3,288,981
Military	2,402,145	109,223,434	2,386,339	102,871,237	984,023	688,349
Unclassified - SOI only	25,131,074	1,144,872,470	10,777,183	317,957,894	15,678,386	70,920,652
<b>Nonjoint return, total</b>	<b>81,866,948</b>	<b>2,474,493,586</b>	<b>69,218,194</b>	<b>1,839,510,096</b>	<b>25,836,671</b>	<b>56,508,284</b>
Natural Resources and Mining	762,013	29,455,603	683,795	17,784,181	185,622	1,054,068
Construction	4,033,934	116,234,137	3,335,430	92,821,343	810,980	1,084,783
Manufacturing	6,207,293	240,996,165	6,159,990	214,897,556	1,840,421	1,927,685
Trade, Transportation, and Utilities	12,802,505	319,381,862	12,143,969	273,205,818	2,846,364	3,194,032
Information	1,469,583	73,867,984	1,427,718	59,902,921	508,401	705,791
Financial Activities	4,332,221	205,332,147	3,998,362	150,997,777	1,513,831	4,507,035
Professional and Business Services	10,954,566	362,945,453	10,199,937	286,393,991	2,794,359	4,303,328
Education and Health Services	10,531,080	327,486,926	10,107,194	285,185,741	3,334,277	2,535,458
Leisure and Hospitality	7,204,576	127,096,014	6,965,953	106,251,808	1,281,372	1,790,796
Other Services	3,872,576	84,676,786	3,250,170	66,399,079	989,429	1,103,059
Government	4,313,793	162,519,564	4,313,793	149,432,356	1,676,693	1,316,565
Military	1,253,691	34,505,475	1,245,886	33,374,933	376,338	207,744
Unclassified - SOI only	14,129,117	399,995,470	5,385,997	102,862,592	7,678,584	32,777,940
<b>Joint return, total</b>	<b>52,505,730</b>	<b>4,948,002,073</b>	<b>44,852,684</b>	<b>3,315,897,273</b>	<b>33,412,687</b>	<b>105,924,430</b>

Footnotes at end of table.



**Table 2: Tax Year 2005, All Returns: Selected Sources of Income and Tax Items, by Industry Sector of Primary Taxpayer<sup>1</sup>—Continued**

(All figures are estimates based on samples. Money amounts are in thousands of dollars.)

North American Industry Classification System (NAICS) Code <sup>2</sup>	Business or Profession			Net Loss			Basic Standard Deduction		
	Net Income		Number of returns (7)	Amount (8)	Number of returns (9)	Amount (10)	Number of returns (11)	Amount (12)	
	Number of returns	Amount							
<b>All returns, total</b>	<b>15,748,898</b>	<b>314,717,431</b>			<b>5,308,435</b>	<b>-45,016,374</b>	<b>84,841,222</b>	<b>564,186,057</b>	
Natural Resources and Mining	268,486	5,631,341			117,049	-1,908,016	1,161,656	8,766,346	
Construction	2,311,481	38,992,751			484,821	-4,552,981	4,921,125	35,715,348	
Manufacturing	915,195	11,781,652			529,065	-3,830,037	7,311,189	53,984,160	
Trade, Transportation, and Utilities	2,505,069	39,773,135			1,051,452	-8,991,639	13,546,034	86,500,538	
Information	322,723	5,145,500			153,055	-1,576,042	12,187,17	7,871,032	
Financial Activities	1,257,453	49,131,893			453,452	-5,549,949	36,491,134	24,282,289	
Professional and Business Services	3,128,541	73,205,112			955,709	-7,521,743	10,518,347	68,372,342	
Education and Health Services	1,536,656	42,540,646			383,964	-2,609,251	8,987,045	56,582,032	
Leisure and Hospitality	852,337	13,135,812			362,458	-3,327,340	7,248,204	40,703,930	
Other Services	1,517,053	19,242,017			300,239	-1,907,117	4,046,487	26,448,527	
Government	324,657	4,153,335			216,860	-1,313,660	3,829,340	26,393,327	
Military	82,059	715,792			66,304	-349,960	1,755,229	11,755,229	
Unclassified - SOI only	727,188	11,268,445			234,007	-1,578,639	16,747,218	116,810,957	
<b>Nonjoint returns, total</b>	<b>6,704,242</b>	<b>91,365,248</b>			<b>1,954,908</b>	<b>-15,836,656</b>	<b>61,164,279</b>	<b>327,684,818</b>	
Natural Resources and Mining	113,663	1,577,466			37,858	-511,892	626,273	3,415,794	
Construction	908,604	11,273,654			144,284	-1,214,202	3,006,997	16,608,468	
Manufacturing	207,962	1,803,159			120,950	-1,030,530	4,432,039	25,207,758	
Trade, Transportation, and Utilities	1,039,039	11,598,711			406,786	-3,304,570	10,313,481	54,201,699	
Information	129,836	1,822,538			73,070	-709,555	941,839	5,104,582	
Financial Activities	506,089	14,913,199			194,800	-1,970,270	2,766,052	15,460,837	
Professional and Business Services	1,454,903	21,769,896			391,538	-3,093,516	8,213,954	45,356,464	
Education and Health Services	858,883	12,246,592			183,318	-1,160,625	7,654,073	43,263,240	
Leisure and Hospitality	496,417	5,153,783			171,811	-1,444,402	6,403,584	32,271,256	
Other Services	818,994	7,962,077			127,724	-755,688	3,052,234	16,515,080	
Government	63,428	572,344			68,653	-476,728	2,683,221	14,939,410	
Military	9,051	34,319			17,680	-59,160	1,017,269	5,367,437	
Unclassified - SOI only	97,373	837,510			16,436	-105,518	10,053,733	49,972,793	
<b>Joint returns, total</b>	<b>9,044,656</b>	<b>223,352,183</b>			<b>3,353,527</b>	<b>-29,179,718</b>	<b>23,676,473</b>	<b>236,501,239</b>	

Footnotes at end of table.

**Table 2: Tax Year 2005, All Returns: Selected Sources of Income and Tax Items, by Industry Sector of Primary Taxpayer<sup>1</sup>—Continued**

(All figures are estimates based on samples. Money amounts are in thousands of dollars.)

North American Industry Classification System (NAICS) Code <sup>2</sup>	Total Itemized Deductions		Taxable Income		Income Tax Before Credits	
	Number of returns (13)	Amount (14)	Number of returns (15)	Amount (16)	Number of returns (17)	Amount (18)
<b>All returns, total</b>	<b>47,755,428</b>	<b>1,121,810,936</b>	<b>104,330,656</b>	<b>5,137,165,873</b>	<b>104,345,969</b>	<b>990,151,766</b>
Natural Resources and Mining	421,587	12,813,963	1,260,484	85,734,565	1,261,349	17,487,554
Construction	3,210,663	70,587,018	6,434,054	290,996,645	6,436,785	55,104,641
Manufacturing	5,597,491	121,971,391	11,771,167	654,840,687	11,773,662	126,535,711
Trade, Transportation, and Utilities	6,499,380	141,713,956	15,681,890	655,517,054	15,682,445	123,448,573
Information	1,258,649	33,464,910	2,233,554	159,578,511	2,234,321	32,044,702
Financial Activities	3,520,287	112,584,595	6,258,819	544,433,293	6,260,590	121,736,659
Professional and Business Services	6,700,523	167,710,560	13,588,556	794,058,164	13,590,969	160,561,968
Education and Health Services	5,278,120	112,338,164	11,566,116	521,436,679	11,564,314	101,285,286
Leisure and Hospitality	1,554,411	37,543,947	5,465,084	174,086,812	5,464,571	34,295,109
Other Services	1,809,530	35,491,100	4,032,836	134,461,414	4,032,018	22,941,760
Government	3,598,876	71,086,536	6,747,611	281,784,130	6,749,899	45,664,160
Military	732,734	14,233,318	2,079,249	68,103,323	2,080,800	10,664,968
Unclassified - SOI only	7,573,177	190,271,478	17,211,236	772,134,596	17,214,446	138,380,675
<b>Nonjoint return, total</b>	<b>19,456,989</b>	<b>339,254,950</b>	<b>59,372,608</b>	<b>1,588,063,231</b>	<b>59,365,853</b>	<b>280,098,929</b>
Natural Resources and Mining	121,822	3,655,846	538,581	20,593,375	538,638	4,024,044
Construction	959,387	15,545,172	2,975,206	72,323,588	2,976,261	12,426,141
Manufacturing	1,753,550	26,848,896	5,427,766	163,162,396	5,428,521	29,306,720
Trade, Transportation, and Utilities	2,350,194	37,822,279	9,110,077	194,027,430	9,109,077	33,022,909
Information	514,774	9,804,799	1,254,848	54,480,768	1,254,860	10,356,765
Financial Activities	1,501,516	31,543,582	3,603,752	146,643,009	3,603,921	29,599,960
Professional and Business Services	2,645,153	45,599,633	7,897,475	231,331,972	7,894,943	42,308,747
Education and Health Services	2,809,861	43,662,224	8,020,914	202,662,894	8,019,110	34,065,635
Leisure and Hospitality	715,453	12,682,332	4,107,382	69,654,372	4,104,802	12,419,600
Other Services	758,540	10,698,566	2,415,115	47,617,154	2,414,605	7,519,982
Government	1,614,259	25,487,072	3,735,508	104,694,276	3,736,513	16,798,107
Military	230,784	3,386,284	1,071,493	21,598,334	1,071,535	3,305,974
Unclassified - SOI only	3,481,696	72,518,265	9,214,491	259,273,663	9,213,067	44,943,345
<b>Joint return, total</b>	<b>28,298,439</b>	<b>782,555,986</b>	<b>44,958,048</b>	<b>3,549,102,642</b>	<b>44,980,116</b>	<b>710,052,837</b>

Footnotes at end of table.

**Table 2: Tax Year 2005, All Returns: Selected Sources of Income and Tax Items, by Industry Sector of Primary Taxpayer<sup>1</sup>—Continued**

(All figures are estimates based on samples. Money amounts are in thousands of dollars.)

**Footnotes**

- [1] For joint returns, the industry sector is based on the primary taxpayer. For example, if the primary taxpayer's industry sector is "Government" and the spouse is not in Government, the spouse's wages will be classified in Government.
- [2] North American Industry Classification System (NAICS) Code at the industry sector level (two-digit level): Natural Resources and Mining (11 and 21); Construction (23); Manufacturing (31, 32, and 33); Trade (42, 44, and 45); Transportation (48 and 49 except U.S. Post Office 491), and Utilities (22); Information (51); Financial Activities (62 except Federal Reserve Banks 521) and Real Estate (53); Professional and Business Services (54, 55, and 56); Education (61 - private) and (923110 - public) and Health Services (62); Leisure (71) and Hospitality (72); Other Services (81); Government (92 except 92310 and including 491 and 521); Military (928); and Unclassified - SOI only (999999).
- For further information visit the U.S. Census Bureau at [www.census.gov/eos/www/naics](http://www.census.gov/eos/www/naics).
- NOTE: Detail may not add to totals because of rounding.
- Source: SOI Individual Income Tax Returns, Tax Year 2005.

**Table 3: Tax Year 2005 All Returns: Number of Returns Using A Paid Preparer, by Occupation Classification of Primary Taxpayer <sup>1</sup>**

(All figures are estimates based on samples.)

Standard Occupation Classification (SOC) Code <sup>2</sup>	Number of Returns	Returns Using A Paid Preparer	Paid Preparer Usage Percentage
	(1)	(2)	(3)
<b>All returns, total</b>	<b>134,372,677</b>	<b>80,032,525</b>	<b>60%</b>
Management, Business, and Finance Occupations	16,553,331	9,317,233	56%
Professional Specialty Occupations	12,594,527	6,427,420	51%
Education, Training, and Library Occupations	3,958,229	1,957,285	49%
Arts, Entertainment, Sports, and Media	2,861,600	1,619,639	57%
Service Occupations	10,760,295	6,305,227	59%
Sales and Office	20,017,828	11,277,042	56%
Natural Resources, Construction, and Maintenance	11,491,686	7,792,594	68%
Production, Transportation, and Material Moving	16,190,698	10,414,755	64%
Military Specific Occupations	1,479,680	590,819	40%
Investors	183,741	154,891	84%
Unclassified Occupations	11,778,406	8,381,871	71%
Nonlabor Force	26,338,192	15,662,003	59%
Deceased	164,464	131,746	80%
<b>Nonjoint return, total</b>	<b>81,866,948</b>	<b>46,288,116</b>	<b>57%</b>
Management, Business, and Finance Occupations	8,194,860	4,248,520	52%
Professional Specialty Occupations	6,491,947	3,220,312	50%
Education, Training, and Library Occupations	2,588,975	1,285,112	50%
Arts, Entertainment, Sports, and Media	1,700,067	899,819	53%
Service Occupations	8,259,822	4,614,980	56%
Sales and Office	13,711,778	7,108,303	52%
Natural Resources, Construction, and Maintenance	5,475,264	3,456,970	63%
Production, Transportation, and Material Moving	9,329,327	5,689,987	61%
Military Specific Occupations	786,733	308,642	39%
Investors	106,134	88,631	84%
Unclassified Occupations	8,034,075	5,424,403	68%
Nonlabor Force	17,090,579	9,865,616	58%
Deceased	97,387	76,821	79%
<b>Joint return, total</b>	<b>52,505,729</b>	<b>33,744,409</b>	<b>64%</b>
Management, Business, and Finance Occupations	8,358,471	5,068,713	61%
Professional Specialty Occupations	6,102,580	3,207,108	53%
Education, Training, and Library Occupations	1,369,254	672,173	49%
Arts, Entertainment, Sports, and Media	1,161,533	719,820	62%
Service Occupations	2,500,473	1,690,247	68%
Sales and Office	6,306,050	4,168,739	66%
Natural Resources, Construction, and Maintenance	6,016,422	4,335,624	72%
Production, Transportation, and Material Moving	6,861,371	4,724,768	69%
Military Specific Occupations	692,947	282,177	41%
Investors	77,607	66,260	85%
Unclassified Occupations	3,744,331	2,957,468	79%
Nonlabor Force	9,247,613	5,796,387	63%
Deceased	67,077	54,925	82%

Footnotes at end of table.

**Table 3: Tax Year 2005 All Returns: Number of Returns Using A Paid Preparer, by Occupation Classification of Primary Taxpayer <sup>1</sup>**

(All figures are estimates based on samples.)

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**Footnotes**

[1] For joint returns, the occupation classification is based on the primary taxpayer. For example, if the primary taxpayer lists his or her occupation as retired (coded as Non-labor Force) and the spouse is not, the return will be classified as as Non-Labor Force.

[2] Standard Occupation Classification (SOC) Codes at the major level (two-digit level ) in high level aggregation: Management, Business, and Finance Occupations (11 and 13); Professional Specialty Occupations (15, 17, 19, 21, 23, 29) and Education, Training, and Library Occupations (25) and Arts, Entertainment, Sports, and Media (27); Service Occupations (31, 33, 35, 37, and 39); Sales and Office (41, 43); Natural Resources, Construction, and Maintenance (45, 47, 49); Production, Transportation, and Material Moving (51, 53); and Military Specific Occupations (55); and Investors (92 - SOI only). SOI unclassified occupations include government and private employees whose jobs cannot be determined (97); self-employed persons whose jobs cannot be determined (8850); and Form 1040 occupation lines which are left empty (8895) or filled in with indiscernible data (88). SOI nonlabor force codes include retired and disabled persons (93); unemployed persons (9350); volunteers (9390); house spouses and home-makers (94); and students (95). SOI code 96 represents deceased taxpayers.

NOTE: Detail may not add to totals because of rounding.

Source: SOI Individual Income Tax Returns, Tax Year 2005.

**Table 4: Tax Year 2005 Form 1040 Tax Forms for Total Returns Using A Paid Preparer, by Industry Classification of Primary Taxpayer <sup>1</sup>**

(All figures are estimates based on samples.)

NAICS Description <sup>2</sup>	Total Returns Using A Paid Preparer			
	Total Returns	Form 1040	Form 1040A	Form 1040EZ
	(1)	(2)	(3)	(4)
<b>All returns, total</b>	<b>80,032,528</b>	<b>53,835,493</b>	<b>18,380,434</b>	<b>7,816,601</b>
Natural Resources and Mining	1,152,779	744,280	301,646	106,853
Construction	5,729,053	4,292,521	942,379	494,154
Manufacturing	7,632,207	4,905,280	1,955,155	771,772
Trade, Transportation, and Utilities	11,983,573	7,591,224	2,725,272	1,667,077
Information	1,311,506	1,016,701	217,929	76,875
Financial Activities	4,196,841	3,154,159	756,857	285,824
Professional and Business Services	9,935,025	6,557,568	2,292,035	1,085,423
Education and Health Services	7,947,600	5,053,602	2,216,661	677,337
Leisure and Hospitality	4,828,756	2,407,699	1,361,721	1,059,336
Other Services	3,656,189	2,604,144	704,572	347,473
Government	3,977,727	2,830,881	860,731	286,115
Military	949,226	455,372	291,861	201,993
Unclassified - SOI only	16,732,046	12,222,062	3,753,615	756,369
<b>Nonjoint return, total</b>	<b>46,288,116</b>	<b>25,865,304</b>	<b>13,208,354</b>	<b>7,214,457</b>
Natural Resources and Mining	517,438	268,118	154,432	94,887
Construction	2,584,205	1,579,939	552,066	452,200
Manufacturing	3,581,536	1,729,278	1,211,305	640,953
Trade, Transportation, and Utilities	6,976,791	3,394,658	2,026,909	1,555,224
Information	763,263	520,979	175,382	66,901
Financial Activities	2,360,763	1,499,881	596,018	264,864
Professional and Business Services	6,039,943	3,213,678	1,801,749	1,024,516
Education and Health Services	5,745,918	3,138,619	1,967,941	639,358
Leisure and Hospitality	3,658,916	1,466,244	1,165,280	1,027,392
Other Services	2,245,545	1,364,024	550,025	331,497
Government	2,177,063	1,304,723	612,163	260,177
Military	491,009	171,219	142,416	177,374
Unclassified - SOI only	9,145,726	6,213,944	2,252,668	679,114
<b>Joint return, total</b>	<b>33,744,412</b>	<b>27,970,189</b>	<b>5,172,080</b>	<b>602,144</b>
Natural Resources and Mining	635,341	476,162	147,214	11,966
Construction	3,144,848	2,712,582	390,313	41,954
Manufacturing	4,050,671	3,176,002	743,850	130,819
Trade, Transportation, and Utilities	5,006,782	4,196,566	698,363	111,853
Information	548,243	495,722	42,547	9,974
Financial Activities	1,836,078	1,654,278	160,839	20,960
Professional and Business Services	3,895,082	3,343,890	490,286	60,907
Education and Health Services	2,201,682	1,914,983	248,720	37,979
Leisure and Hospitality	1,169,840	941,455	196,441	31,944
Other Services	1,410,644	1,240,120	154,547	15,976
Government	1,800,664	1,526,158	248,568	25,938
Military	458,217	284,153	149,445	24,619
Unclassified - SOI only	7,586,320	6,008,118	1,500,947	77,255

Footnotes at end of table.

**Table 4: Tax Year 2005 Form 1040 Tax Forms for Total Returns Using A Paid Preparer, by Industry Classification of Primary Taxpayer <sup>1</sup>**

(All figures are estimates based on samples.)

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**Footnotes**

[1] For joint returns, the industry sector is based on the primary taxpayer. For example, if the primary taxpayer's industry sector is Government and the spouse is not, the the return will be classified as Government.

[2] North American Industry Classification System (NAICS) Code at the industry sector level (two-digit level): Natural Resources and Mining (11 and 21); Construction (23); Manufacturing (31, 32, and 33); Trade (42, 44, and 45), Transportation (48 and 49 except U.S.Post Office 491), and Utilities (22); Information (51); Financial Activities (52 except Federal Reserve Banks 521) and Real Estate (53); Professional and Business Services (54, 55, and 56); Education (61-private) and (923110-public) and Health Services (62); Leisure (71) and Hospitality (72); Other Services (81); Government (92 except 92310 and including 491 and 521); Military (928); and Unclassified - SOI only (999999).

NOTE: Detail may not add to totals because of rounding.

Source: SOI Individual Income Tax Returns, Tax Year 2005.

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## **Issues Affecting High-Wealth Individuals**

**Moore ♦ Johnson ♦ Schreiber**

**Blank**

**Tikekar ♦ Wolman ♦ May**



# **The Income-Wealth Paradox: Connections Between Realized Income and Wealth Among America's Aging Top Wealth-Holders**

*Barry Johnson, Internal Revenue Service;  
Kevin Moore, Board of Governors of the Federal Reserve System;  
and Lisa Schreiber, Internal Revenue Service*

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Meaningful measures of individual economic well-being are essential for the equitable administration of Government social and economic policies. Realized income, which includes both wage and property income, is a frequently cited measure of both economic well-being and inequality, chiefly because wage income, the largest component for most households, is relatively easy to observe and measure (Steuerle, 1985). Some researchers, however, have argued that the “stock dimension” of asset ownership provides economic advantages, such as economic security, political privilege, and power that should also be considered in any study of well-being (Wolfe and Zacharias, 2006). Policymakers, the media, and the general public often incorrectly conflate income and wealth, using them interchangeably when trying to make inferences about the well-being of various segments of the population. This is particularly problematic because these two are not as closely correlated as is generally assumed, particularly among the very wealthy.

For the very wealthy, the discordant relationship between income and wealth is the result of the dynamic nature of the income reported by this segment of the population. Two studies using panel data from U.S. Federal income tax returns have shown that the composition of the group of individuals whose incomes place them near the top of the income distribution changes dramatically over time (Frenze, 1992; U.S. Treasury, 2007). The U.S. Treasury Department study found, for example, that fewer than half of those in the top 1 percent of the income distribution in 1996 were still in the top 1 percent in 2005. This volatility increased at the very top of the distribution, so that only about 25 percent of the individuals in the top 1/100<sup>th</sup> percent in 1996 remained in the top 1/100<sup>th</sup> percent in 2005. The Treasury report concluded that the income of many of the highest-income taxpayers is transitory and generally declines over time (U.S. Treasury, 2007).

The transitory composition of income quintiles over time can be partially attributed to decreases in wage income for individuals above retirement age. Also, for wealthier individuals, return on capital becomes an increasingly important source of income. For the very wealthy, however, income from capital can be particularly susceptible to manipulation to minimize tax liability. For example, it has been shown that rates of return on investments decline as wealth increases among the very wealthy (Steuerle, 1985; Wahl and Johnson, 2004). If this is the case, then, for these very wealthy individuals, measures of well-being that focus solely on realized income will understate their true economic status.

This paper is intended to add to the understanding of the ways in which income from various sources changes with age for the very wealthy. It makes use of a special longitudinal panel of U.S. income tax data linked to wealth data reported on U.S. estate tax returns filed for wealthy decedents. The relatively high estate tax filing threshold places these individuals at the top of the U.S. wealth distribution. Combined income and wealth data in the Statistics of Income Family Panel Decedent Dataset (FPDD) allow investigation of changes in the composition of realized income over time and also provide insights into asset management strategies employed by this elite group. In addition, this paper investigates the relationship between income and end-of-life wealth through the use of the portfolio data reported on the estate tax returns. Due to the limitations of the tax data, it incorporates data from the U.S. Survey of Consumer Finances to estimate these panel members' place in the overall U.S. distributions of income and wealth.

## Tax Return Data

The Statistics of Income Division (SOI) of the United States Internal Revenue Service collects statistical data from most major Federal tax and information returns. These data are used by both the U.S. Congress and the Executive Branch of the Government to evaluate and develop tax and economic policy. Among these are annual studies of the *United States Estate (and Generation-Skipping Transfer) Tax Return* (Form 706) and the *U.S. Individual Income Tax Return* (Form 1040).

A Federal Estate Tax Return, Form 706, must be filed for every U.S. decedent whose gross estate, valued on the date of death, combined with certain lifetime gifts made by the decedent, equals or exceeds the filing threshold applicable for the decedent's year of death.<sup>1</sup> The return must be filed within

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<sup>1</sup> The estate tax filing thresholds for 1994–2003 are listed in Table 1.

9 months of a decedent's death, although a 6-month extension is frequently granted. All of a decedent's assets, as well as the decedent's share of jointly owned and community property assets, are reported on Form 706. Also reported are most life insurance proceeds, property over which the decedent possessed a general power of appointment, and certain transfers made during life.

Form 1040 is filed by individuals or jointly by couples to report annual income, including wages, interest, dividends, capital gains, and some types of business income. The Statistics of Income Division of the Internal Revenue Service conducts annual studies of these filings, extracting detailed information from a statistical sample of returns as they are filed and producing microdata sets and tabulations that are widely used to evaluate and manage the U.S. tax system and the economy. The SOI stratified sample design oversamples high-income taxpayers to ensure accurate estimates of the often unique financial characteristics of this elite group. In 1987, SOI incorporated a panel component, the Family Panel, into its annual cross-sectional samples in order to include all members of a tax family (primary and secondary filers and their dependents) in a panel that represented the cohort of tax families filing returns in 1988 for Tax Year 1987 (Schirm and Czajka, 1991). For the initial year, the Family Panel included 89,755 returns, not counting returns filed by dependents.

## **The Tax Family Concept**

The unit of observation for the SOI 1987 Family Panel was defined as a tax family, which included an income taxpayer, spouse, and all dependents (not limited to children) claimed by either. Thus, a tax family could represent single income tax filers, as well as joint filers and their dependents.<sup>2</sup> An interesting complication of the tax family concept is the treatment of married couples who, for various reasons, elected to file income taxes separately. For the purposes of the followup in the later years of the panel, only a partner whose separately filed return was selected into the 1987 panel sample was permanently included in the panel; the only way for both spouses of a married couple filing separately in 1988 to have been permanently included in the Family Panel was for returns filed by each spouse to have been

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<sup>2</sup> Dependents did not need to live in the same household as the parent to be included in the tax family. However, information on dependents whose incomes fell below the filing threshold was generally not available unless reported on the parent's return. Coresident family members who were not claimed as dependents were not included in the tax family. No dependents are included in the analysis presented in this paper.

independently selected. Thus, the tax family differs significantly from the more common “household” measure used by many national surveys (Czajka and Schirm, 1993).

Assets are valued on the day of the decedent’s death, although an estate is also allowed to value assets on a date up to 6 months after a decedent’s death if market values decline. Special valuation rules and a tax deferral plan are available to an estate that is primarily composed of a family-owned small business or farm. Expenses and losses incurred in the administration of the estate, funeral costs, the decedent’s debts, bequests to a surviving spouse, and bequests to qualified charities are all allowed as deductions against the estate for the purpose of calculating the tax liability.

## **Survey of Consumer Finances**

The Survey of Consumer Finances (SCF) is a survey of household balance sheets conducted by the Board of Governors of the Federal Reserve System in cooperation with the SOI division of the IRS. Besides collecting information on assets and liabilities, the SCF collects information on household demographics, income, relationships with financial institutions, attitudes toward risk and credit, current and past employment, and pensions (Bucks; Kennickell; Mach; and Moore, 2009).

The SCF uses a dual frame sample design to provide adequate representation of the financial behavior of all households in the United States. One part of the sample is a standard multistage national area probability sample (Tourangeau et al., 1993), while the list sample uses the SOI individual income tax data file to oversample wealthy households (Kennickell, 2001). Wealth data from the SCF are widely regarded as the most comprehensive household-level data available for the United States. Sample weights constructed for the SCF allow aggregation of estimates to the U.S. household population level in a given survey year (Kennickell and Woodburn, 1999; Kennickell, 1999).

## **The Data**

Starting in 1994, the sample for SOI’s annual estate tax studies included any Form 706 filed for a deceased 1987 Family Panel member. The Family Panel Decedent Dataset (FPDD) was begun in 1994 as a combination of these estate tax returns and their corresponding individual income tax return

data. Between 1994 and 2003, there were 5,557 estate tax returns identified as having been filed for 1987 Family Panel members who died.<sup>3</sup>

The FPDD includes income data spanning 1987 to 2003 and estate tax data ranging from 1994 to 2003.<sup>4</sup> A total of 72,373 income tax returns were available for the members of FPDD. Table 1 presents the distribution of decedents by year of death, along with the applicable estate tax filing threshold. The rightmost column shows only those 5,162 decedents whose gross estates at the time of death were at least \$1 million in constant 2003 dollars and for whom a Form 1040 was filed in the last year prior to death.

For 98.2 percent of decedents captured in the FPDD, income tax data were available for each tax year between 1987 and the last full year prior

**Table 1. Filing Threshold and Number of Decedents, by Year of Death**

Year of Death	Number of decedents	Filing threshold in nominal dollars	Number of decedents with assets of \$1M or more in constant 2003 dollars
1994	417	600,000	385
1995	480	600,000	440
1996	521	600,000	478
1997	574	600,000	520
1998	538	625,000	487
1999	635	650,000	586
2000	609	675,000	559
2001	667	675,000	605
2002	636	1,000,000	630
2003	480	1,000,000	472
<b>Total</b>	<b>5,557</b>	<b>N/A</b>	<b>5,162</b>

<sup>3</sup> An additional 755 Estate tax returns were filed for decedents who died prior to 1994, the date that SOI began collecting these data for panel members, so that these decedents are excluded from this analysis. Estate returns of visitors to the panel (individuals who were married to existing panel members for periods after 1987) were not included in the final dataset since income data were only available for those years that they were associated with an original panel member. Estate returns of dependents were also excluded.

<sup>4</sup> Up until 1996, individual income tax data were collected and edited by SOI. Starting in 1996, a reduced set of data collected by IRS for administrative purposes was available. These data were not subject to the edit review that is routinely part of SOI data collection and may be subject to additional nonsampling error and subtle differences in data definitions (see Johnson and Schreiber, 2006).

to death. For an additional 1.3 percent of all decedents, only one return was missing from this time series, leaving only a handful of decedents for whom more than one return was missing from the panel.<sup>5</sup>

The design of the FPDD poses several analytical challenges. Longitudinality introduces problems with the tax family concept because, over time, a filing unit may change composition, and this change is usually accompanied by changes in filing status (Czajka and Schirm, 1993). In addition, the selection criteria for inclusion in the FPDD changed during the sample period due to changes in the estate tax filing threshold. Another important consideration is that an estate tax return includes only a decedent's share of a married couple's assets, while income tax returns for married couples who file jointly report income attributable to both partners. Finally, with a few exceptions, such as tax-exempt interest income, only income subject to taxation is reported on a tax return, and that reported income may be subject to both accidental and intentional misreporting by the taxpayer.

Although the income tax filing status reported for members of the FPDD was much more stable over time than that of the general population, changes are inevitable. In particular, married persons may divorce, single persons may marry, couples who customarily file jointly may elect to file separately or vice versa, or one or both spouses of a married couple may die. The longer the time series, the greater the possibility for one of these events to occur. Table 2 shows panel members for whom a tax return was filed in the last year prior to death and compares each panel member's filing status in the year prior to death with that reported for earlier

**Table 2. Filing Status Stability of Panel Members for Whom a Form 1040 was Filed 1 Year Prior to Death**

Includes only those panel members who died between 1994 and 2003 with gross assets valued at \$1 million or more in constant 2003 dollars

Filing Status	Number	Number of years prior to death filing status unchanged			
		3	5	7	9
Single	1,688	1,421	1,230	1,062	766
Joint	3,474	3,399	3,343	3,305	2,693
<b>Total</b>	<b>5,162</b>	<b>4,820</b>	<b>4,573</b>	<b>4,367</b>	<b>3,459</b>

<sup>5</sup> Missing returns can occur either because a taxpayer was not required to file in a given year, or because of an error in reporting a taxpayer's Social Security number (SSN)—a unique personal identifier used for tax administration. The latter occurred mainly in the case of secondary SSNs in the 1987 panel. After the period covered by this study, the IRS implemented processing improvements that greatly reduced the chances of SSN errors in the data.

tax periods. Filers are grouped into two broad categories, single filers and joint filers.<sup>6</sup> Using this classification, filing status was constant for 67 percent of all panel members over the 9 years preceding death. Individuals who were single filers at death were much more likely to have changed filing status in the years preceding death than those who were joint filers. Only 45 percent of all individuals who were single filers in the year prior to death had been single over at least the 9 years examined. This result is influenced by couples for whom one spouse died and those who divorced or separated during the period. Of individuals who were joint filers at death, 78 percent had been married for at least the previous 9 years. Filing status was significantly more static over the 7 years preceding death for both groups, with no change for 85 percent of all filers, 63 percent of single filers, and 95 percent of joint filers. This paper focuses on filers with constant filing status for the 7 years prior to death and at least \$1 million (in constant 2003 dollars) in gross wealth as reported in estate tax filings.

## Income Components

The filers in the sample used in this analysis are a very selective slice of all taxpayers in any given year. Many members of the sample have a high level of total income, but, owing to the nature of the sample selection, it is difficult to gauge where these filers fall in the overall distribution of income. One possibility is to compare weighted mean total income by year in the FPDD to the distribution of a comparable total income measure constructed from SCF data.<sup>7</sup> The comparison reveals that weighted mean total income by year in the FPDD is above the 95<sup>th</sup> percentile of the SCF income distribution in each year in which the two data sources overlap (Tax Years 1988, 1991, 1994, 1997, 2000, and 2003).<sup>8</sup>

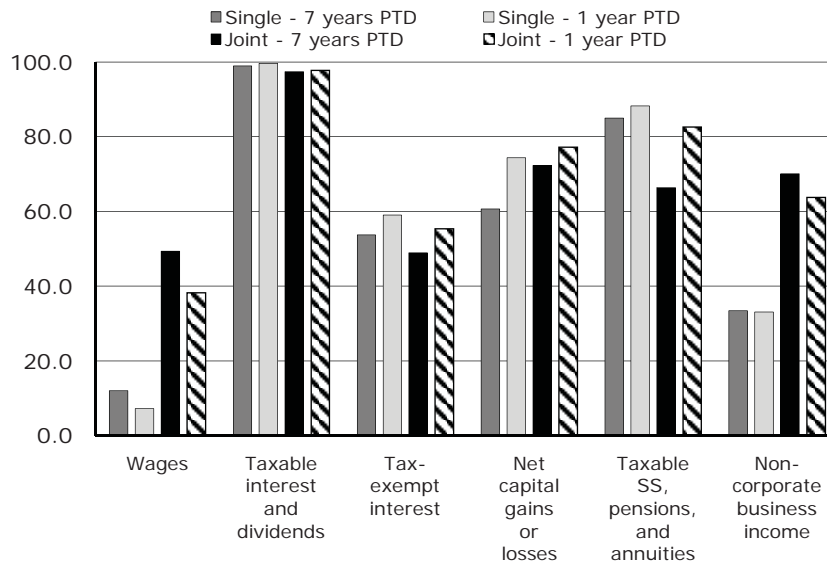
Figure 1 provides some basic information on the fraction of filers with different types of income, by the number years prior to death. The most striking point to note from this Figure, but hardly surprising, is the extremely high incidence of income derived from various assets, regardless of filing status or the number of years prior to death. Over 96 percent of both types of filers have taxable interest and dividend income, and about one-half have

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<sup>6</sup> The category “single” includes individual income tax return filers who were unmarried, widowed, or married but filing separately.

<sup>7</sup> All estimates are weighted using weights that reflect the original family panel selection probabilities of the primary and, if present, secondary filer. All dollar values are reported in constant 2003 dollars.

<sup>8</sup> In comparable years, weighted median total income in the FPDD falls between the 70<sup>th</sup> and 90<sup>th</sup> percentiles of the SCF income distribution.

**Figure 1. Percentage of Filers with Various Types of Income**

tax-exempt interest income. For single filers, about 65 percent have net capital gains or losses. Over 70 percent of joint filers report this type of income. About 35 percent of single filers and 65 percent of joint filers also receive income from noncorporate businesses. Given that the average age at death in the sample is 77, it is not surprising that taxable Social Security, pension, and annuity income is common among both groups of filers, while wage income is the least common type of income received.

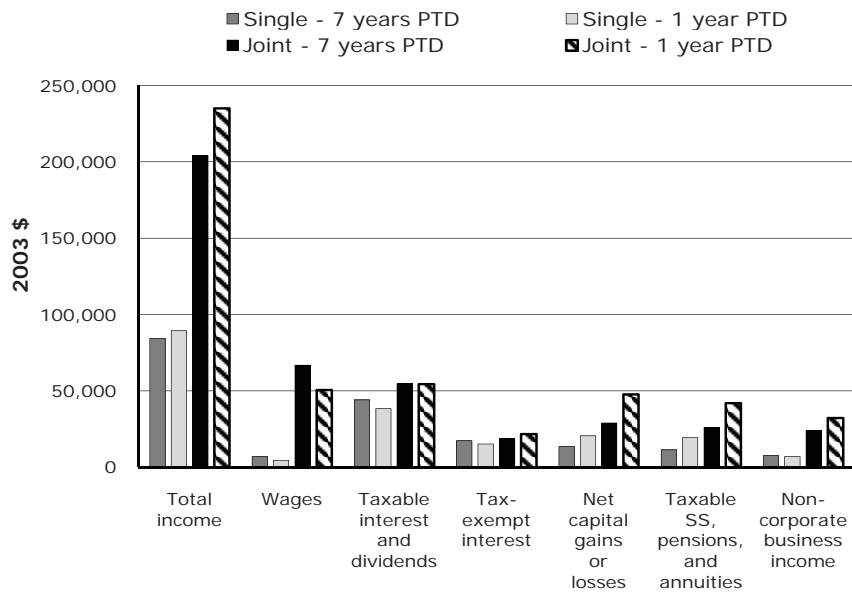
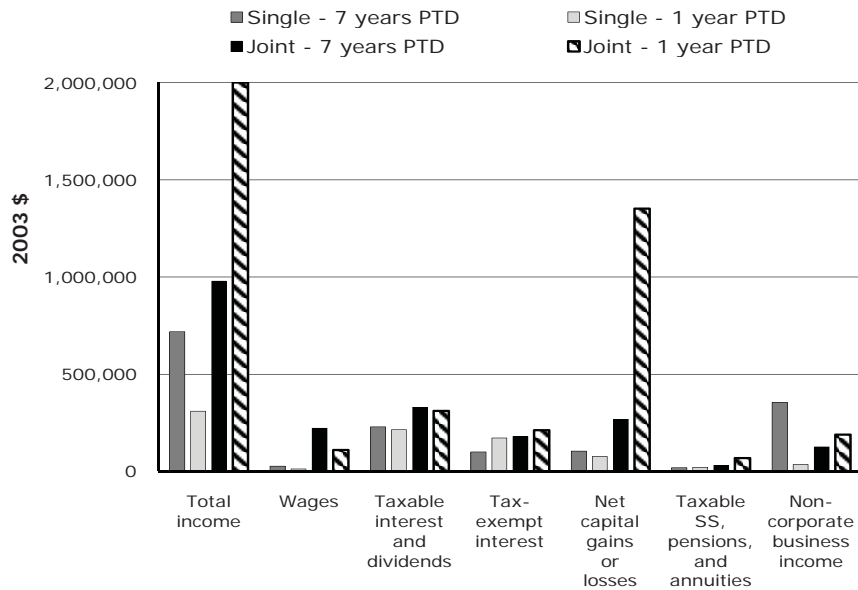
Figures 2a–c present the (unconditional) mean values of various types of income by filing status, years prior to death, and end of life wealth category.<sup>9</sup> The most striking feature of the Figures is the difference in mean total income across wealth groups. Depending on filing status and number of years prior to death, mean total income is 5 to 10 times larger for the \$10 and \$20 million wealth group (Figure 2b) than for the less than \$10 million wealth group (Figure 2a). Somewhat smaller differences exist between the middle and the top wealth groups. Mean total income for the \$20 million or more wealth group (Figure 2c) is only 2 to 6 times larger.<sup>10</sup>

The Figures also reveal that income derived from taxable interest and dividends, tax-exempt interest, and capital gains is an important source

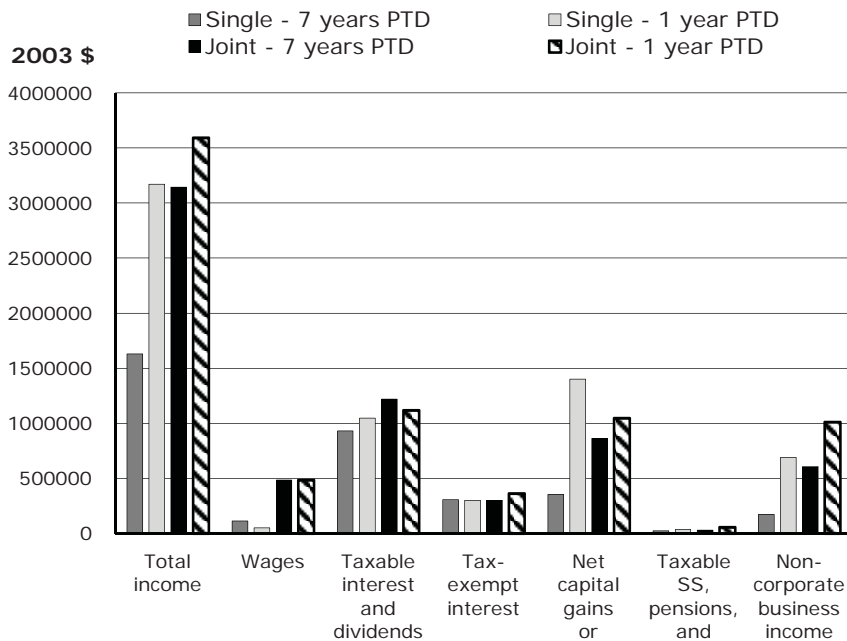
<sup>9</sup> Gross estate valued on the date of a decedent's death is used as the measure of wealth throughout this analysis.

<sup>10</sup> Similar results are found when comparing the median and the 75<sup>th</sup> and 95<sup>th</sup> percentile values of total income across wealth groups.



**Figure 2a. Mean Value of Various Types of Income, Wealth Less than \$10 Million****Figure 2b. Mean Value of Various Types of Income, Wealth \$10 to \$20 Million**

**Figure 2c. Mean Value of Various Types of Income, Wealth \$20 Million or More**



of income for all wealth groups. For the middle and top wealth groups, income from these sources accounts for at least two-thirds of mean total income, regardless of filing status or years prior to death. Business income is also a more important source of income for the top two wealth groups than for the lowest wealth group. Mean wage income and mean taxable Social Security, pension, and annuity income account for a relatively small fraction of total mean income. The share is largest for single and joint filers in the lowest wealth group.

### Changes in Income and Wealth at the End of Life

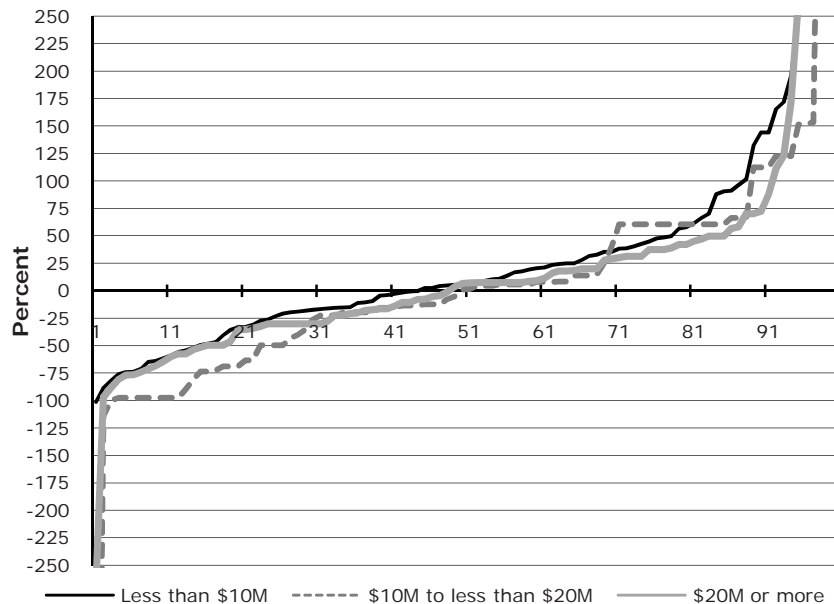
The panel aspect of the FPDD provides an opportunity to examine how total income and its various components change as filers age and approach death. Overall, a decline in income from wages and active involvement with businesses as individuals age, accompanied by a shift from risky investment income sources to more stable, tax-preferred sources, can be expected. In addition, life-cycle theories of savings suggest an increase in income from

capital gains as individuals consume out of savings. Since the data contain information on estate tax filings, how changes in income prior to death are related to wealth at the end of life can also be examined.

Figures 3a–d present the percentage change in total income by filing status and wealth group. The graphs show the distribution of percentage changes in income over two time periods: between 7 years prior to death and 1 year prior to death, and between 4 years prior to death and 1 year prior to death.<sup>11</sup>

For single filers, Figures 3a and 3b reveal that about half of filers experienced a positive change in income over either time period.<sup>12</sup> The distribution of changes is fairly similar for the bottom and top wealth groups over the 7-year period. However, over the 4-year period, the top two wealth groups were much more likely to experience an increase in total income of

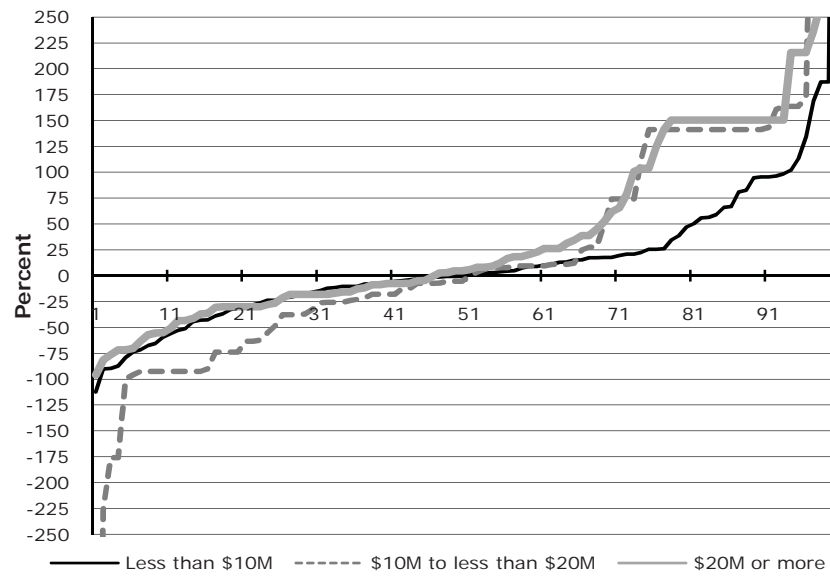
**Figure 3a. Percentage Change in Income Between 7 Years to 1 Year Prior to Death, by Wealth, Single Filers**



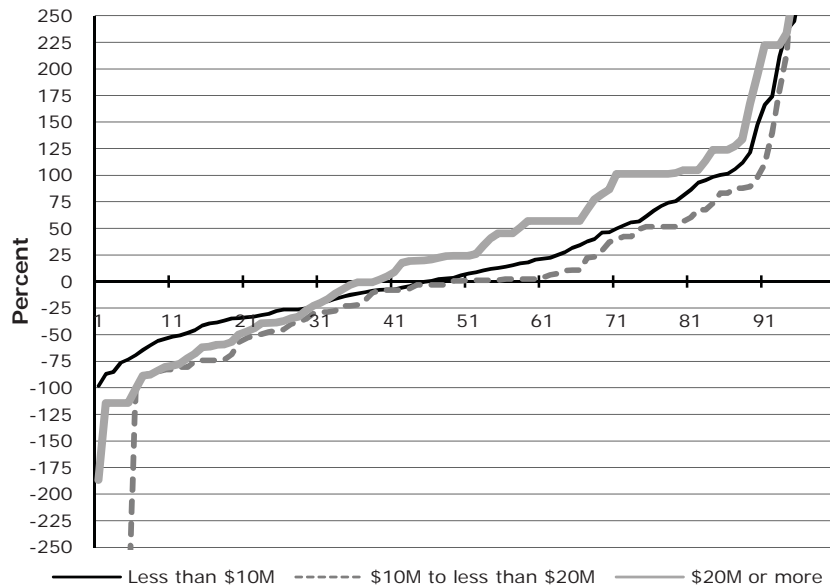
<sup>11</sup> 1 year prior to death is used because income data for a decedent's year of death would represent income earned during less than a full 12-month period in almost all cases.

<sup>12</sup> The graphs are truncated at  $\pm 250$  percent to better show patterns in the data. The truncation removes the top 5 percent and bottom 5 percent of the changes.

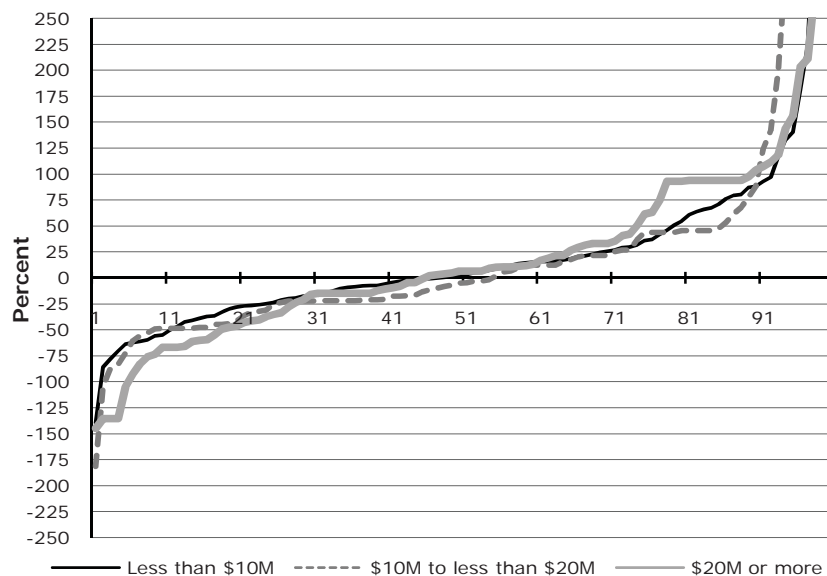
**Figure 3b. Percentage Change in Income Between 4 Years to 1 Year Prior to Death, by Wealth, Single Filers**



**Figure 3c. Percentage Change in Income Between 7 Years to 1 Year Prior to Death, by Wealth, Joint Filers**



**Figure 3d. Percentage Change in Income Between 4 Years to 1 Year Prior to Death, by Wealth, Joint Filers**



more than 100 percent. Over both time periods, the distribution of changes for the middle wealth group exhibits the most variability. This group is the most likely to have experienced a large negative percentage change.

For joint filers, Figures 3c and 3d show a somewhat different pattern, as the changes in income over the 7-year period are more variable than over the shorter period. For the top wealth group over the longer period, about two-thirds of filers experienced a positive percentage change in total income, compared to about half of filers in the other two wealth groups. Similar to single filers, the middle wealth group was the most likely to have experienced a large negative percentage change in total income.

Overall, Figures 3a–d show that, for both single and joint filers, there was a great deal of variability in total income over both periods examined, and that the majority of the percentage changes ranged between plus and minus 50 percent, regardless of wealth group. In addition, the distribution of the percentage changes in total income is not very different in either time period.<sup>13</sup> Together, the data suggest that, for this population, aging or proximity to death do not have a consistent effect on income variability.

<sup>13</sup> Similar results are found if Figure 3 is constructed using the difference between the average of total income calculated over 7 years to 4 years prior to death and the average over 3 years to 1 year prior to death.

The lack of major differences in the distributions of the percentage change in total income over both periods does not necessarily imply that individual filers each experienced a sizable change in income over both periods. However, as shown in Table 3, 58 percent of single filers and 66 percent of joint filers had a change in total income in both periods of greater than 25 percent in absolute value. This fraction increases with wealth. Table 3 also shows that over a one-third of both types of filers had a change in total income in both periods of greater than 50 percent in absolute value. For joint filers in the top wealth group, the fraction was almost two-thirds.

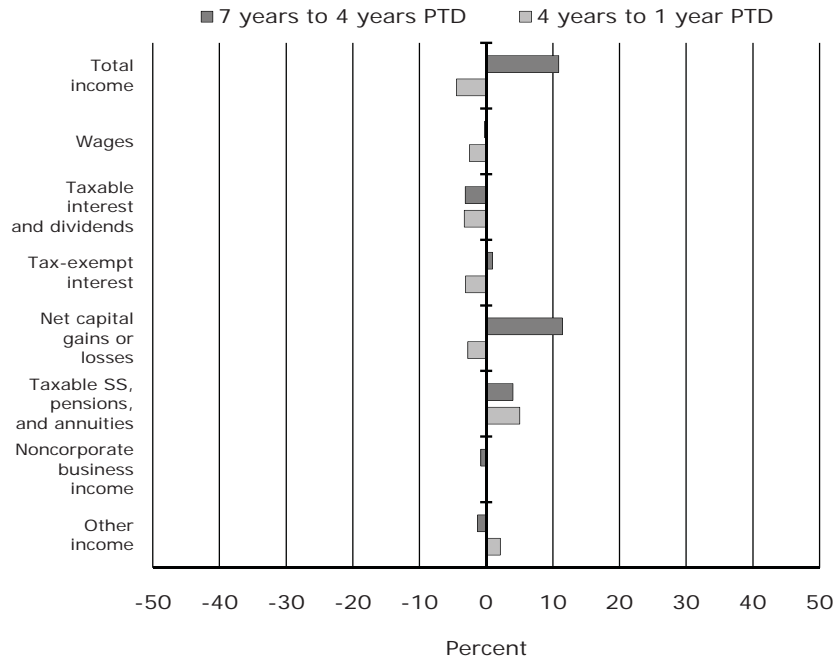
Overall, Figures 3a–d and Table 3 show there is substantial variability in total income for filers regardless of filing status, wealth group, or time period. This variability is due to a combination of variability in rates of return on assets, strategic portfolio decisions, consumption needs, and general economic conditions. Unfortunately, the data in the FPDD do not provide an easy method for sorting out which of these factors is driving the variability, but a closer examination of the changes in the components of income is possible.

Figures 4a–f present a decomposition of the change in mean total income into the share attributable to selected income components, for

**Table 3. Percentage of Filers with Selected Percentage Changes in Total Income Over 7 Years to 1 Year Prior to Death and 4 Years to 1 Year Prior to Death, By Filing Status and Wealth Class**

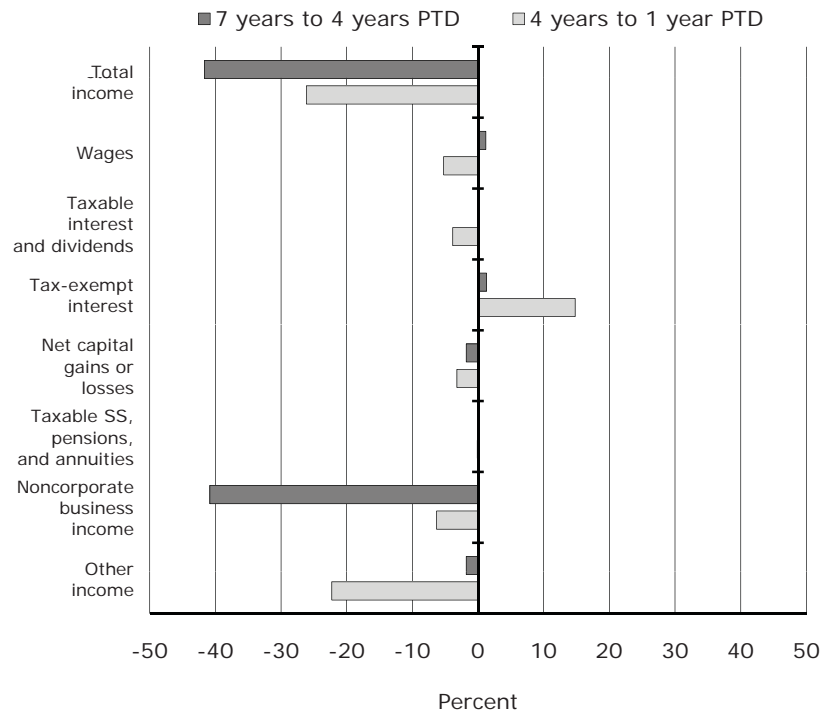
Marital Status/ Wealth Category		Percentage change in total income	
		Absolute value > = 25%	Absolute value > = 50%
Single	All Wealth Categories	58	36
	Less than \$10M	58	36
	\$10M to less than \$20M	61	56
	\$20M or more	69	44
Joint	All Wealth Categories	66	42
	Less than \$10M	66	42
	\$10M to less than \$20M	66	50
	\$20M or more	78	63

**Figure 4a. Decomposition of Percentage Change in Total Income and Components for Selected Years Prior to Death (PTD): Single Filers with Less than \$10M in Total Assets at Death**



each wealth group, focusing on two time periods, 7 years to 4 years prior to death and 4 years to 1 year prior to death. Starting with single filers in the less than \$10 million wealth group, Figure 4a shows that mean total income is relatively stable for single filers in this lowest wealth group which, after rising in the first period, falls as filers near death. The primary drivers of the small increase in mean total income over the first period are capital gains income and taxable Social Security, pension, and annuity income. The increase in the latter is due to the aging of the filers over the sample period. Over the second period, the decline in mean total income is due to a fall in wages, income derived from financial assets, and capital losses. In contrast, mean total income for single filers in the \$10 to \$20 million wealth group (Figure 4b) is more variable, with declines in both periods. A sharp decline in noncorporate business income accounts for almost all the decline over the 7-year to 4-year period.

**Figure 4b. Decomposition of Percentage Change in Total Income and Components for Selected Years Prior to Death (PTD): Single Filers with \$10M to Less than \$20M in Total Assets at Death**



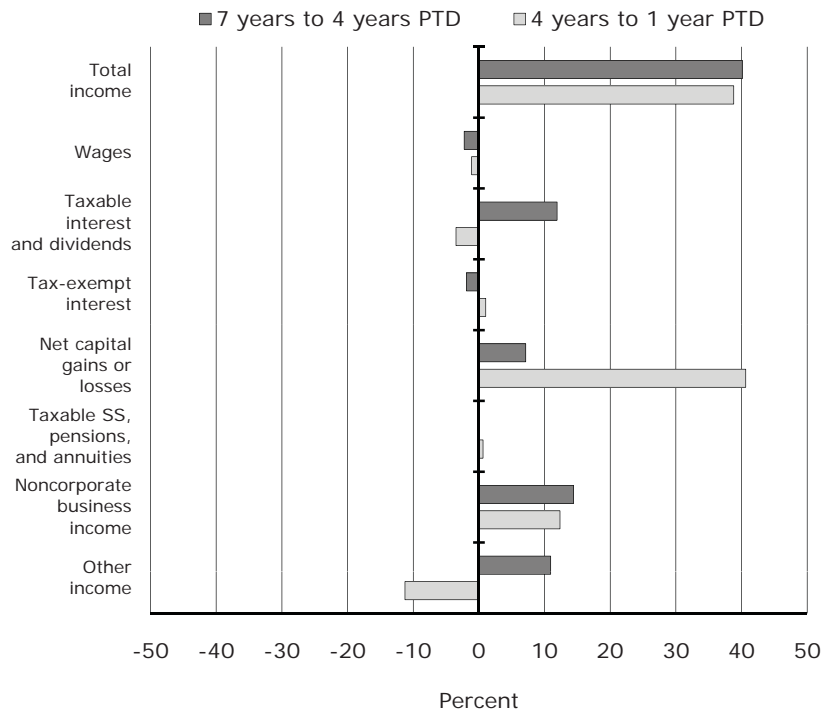
In the period closer to death, a modest increase in tax-exempt interest income is more than offset by a decline in other income.

Figure 4c reveals that, unlike the lowest and middle wealth groups, single filers in the \$20 million or more group experienced a substantial increase in mean total income over both periods. Over the 7 years to 4 years prior to death period, the increase was driven by taxable interest and dividends, capital gains income, noncorporate business income, and other income. In the period closer to death, the increase in mean total income is primarily due to a large increase in capital gains income.

Turning to joint filers in the less than \$10 million wealth group, Figure 4d presents a pattern similar to the one found for single filers in this wealth



**Figure 4c. Decomposition of Percentage Change in Total Income and Components for Selected Years Prior to Death (PTD): Single Filers with \$20M or More in Total Assets at Death**



group. The change in mean total income is relatively small in both periods, but, for joint filers, there is an increase in mean total income in the period closer to death. Income from capital gains, taxable Social Security, pensions, and annuities, and noncorporate business account for the majority of this increase.

Joint filers in the \$10 to \$20 million wealth group (Figure 4e) have the largest percentage changes of any of the filing status/wealth groups examined. Although the changes in mean total income over the 7 years to 4 years prior to death period are modest, mean total income more than doubled over the period closer to death. As is obvious from Figure 4e, the catalyst for this change is driven by the more than doubling of capital gains income.

**Figure 4d. Decomposition of Percentage Change in Total Income and Components for Selected Years Prior to Death (PTD): Joint Filers with Less than \$10M in Total Assets at Death**

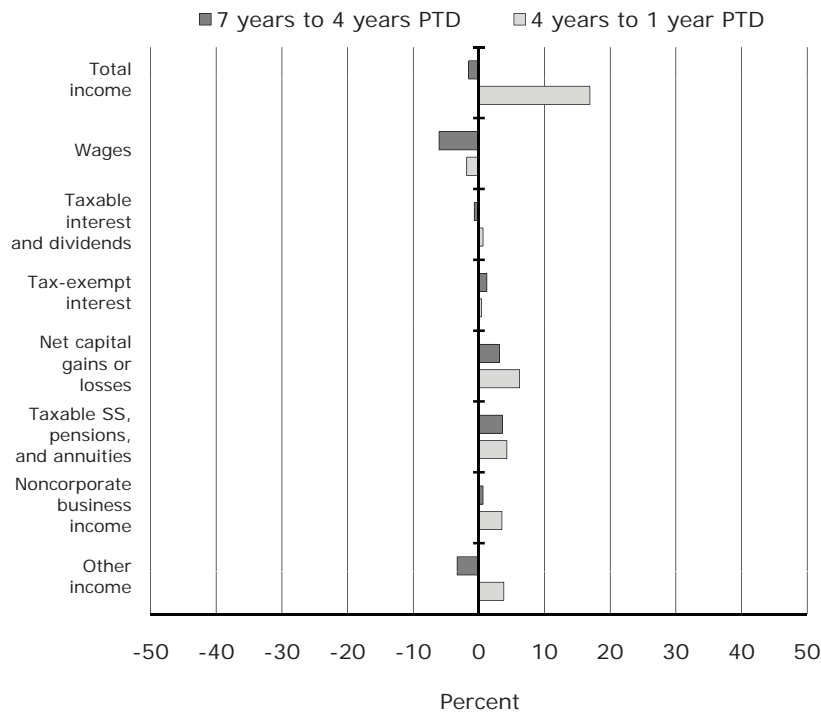
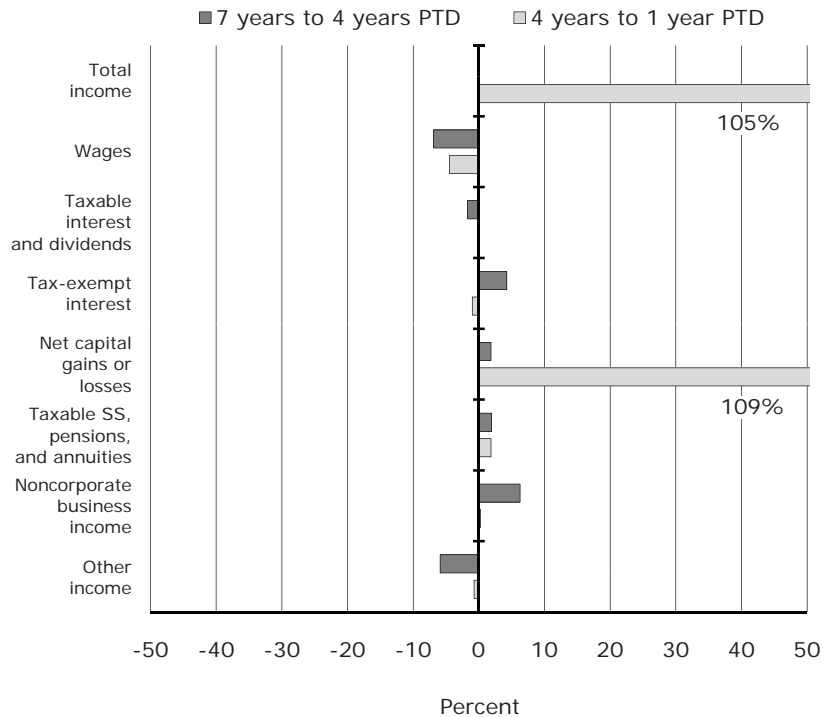


Figure 4f reveals that joint filers in the top wealth group experienced small increases in mean total income in both periods. Noncorporate business and capital gain income accounted for a substantial share of the increases in mean total income. The size of these percentage changes is quite similar to those observed for single and joint filers in the lowest wealth group.

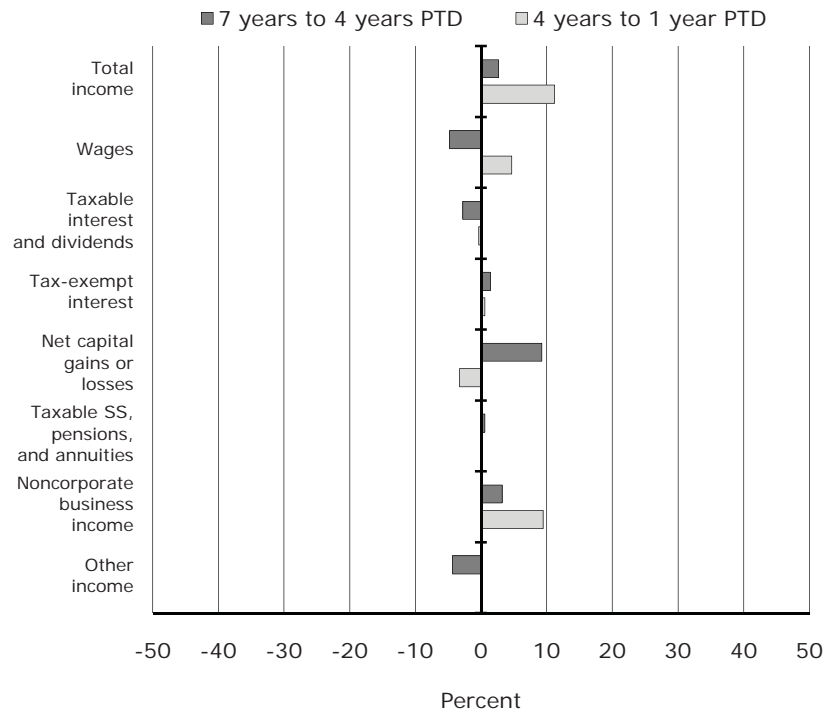
The decline in mean total income and particularly the decline in income from assets for single filers in the two lower wealth groups could be interpreted as evidence that wealth is also declining as these filers near death. Alternatively, older respondents may more closely align income realizations with their consumption needs in order to conserve resources for future health care costs. They may also actively conserve wealth in order to provide significant

**Figure 4e. Decomposition of Percentage Change in Total Income and Components for Selected Years Prior to Death (PTD): Joint Filers with \$10M to Less than \$20M in Total Assets at Death**



bequests to their heirs. In contrast, mean total income increased for high wealth single filers and all joint filers, especially in the period closer to death. Most of the increases in mean total income are due to capital gains realizations and noncorporate business income. The increase in capital gains income could be evidence that some decedents spend out of wealth to cover expenses related to a final illness, or that they are simplifying their portfolios to reduce the burden of administering their estates. The albeit small increase in tax-exempt interest, along with the decrease in income from dividends and taxable interest for this group, suggests a general restructuring of the portfolio to favor tax-preferred investments. As this study only observes end of life wealth, it is difficult to know which behavior is dominant.

**Figure 4f. Decomposition of Percentage Change in Total Income and Components for Selected Years Prior to Death(PTD): Single Filers with \$20M or More in Total Assets at Death**

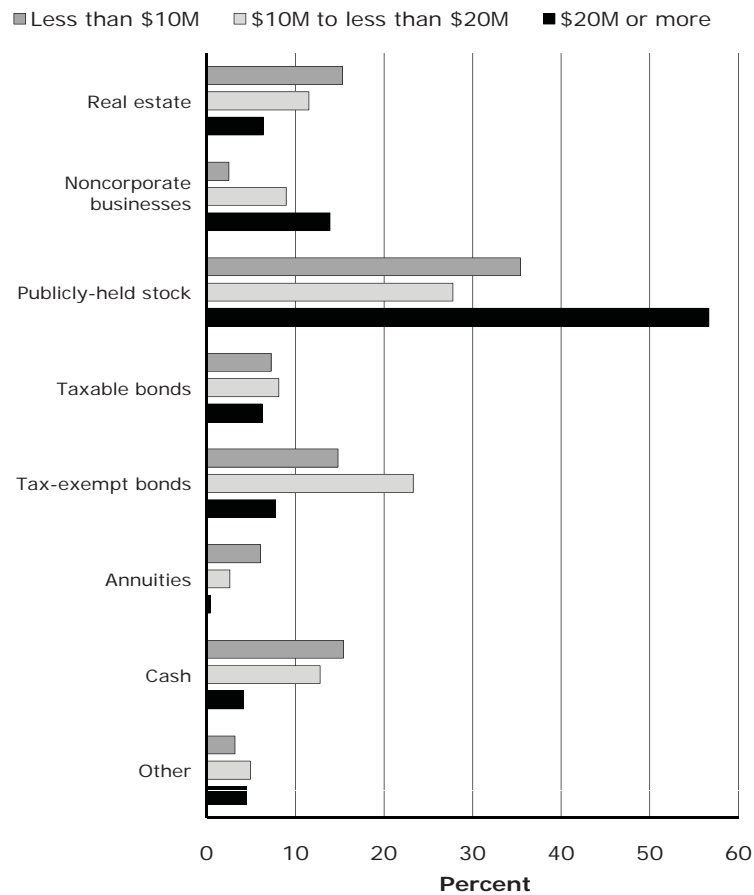


## Wealth Allocation at the End of Life

Income derived from assets was extremely important for the filers in this sample, and income varied quite substantially across different periods leading up to death. Figures 5a and 5b provide some information on the allocation of end-of-life wealth, as reported in estate tax filings. Note that filers in the sample from the FPDD have a minimum of \$1 million in gross assets (in constant 2003 dollars). This level of wealth places them above the 90<sup>th</sup> percentile of the distribution of wealth derived from the SCF data.

Figure 5a shows the share of wealth in real estate, noncorporate businesses, stock, taxable bonds, tax-exempt bonds, annuities, cash, and other

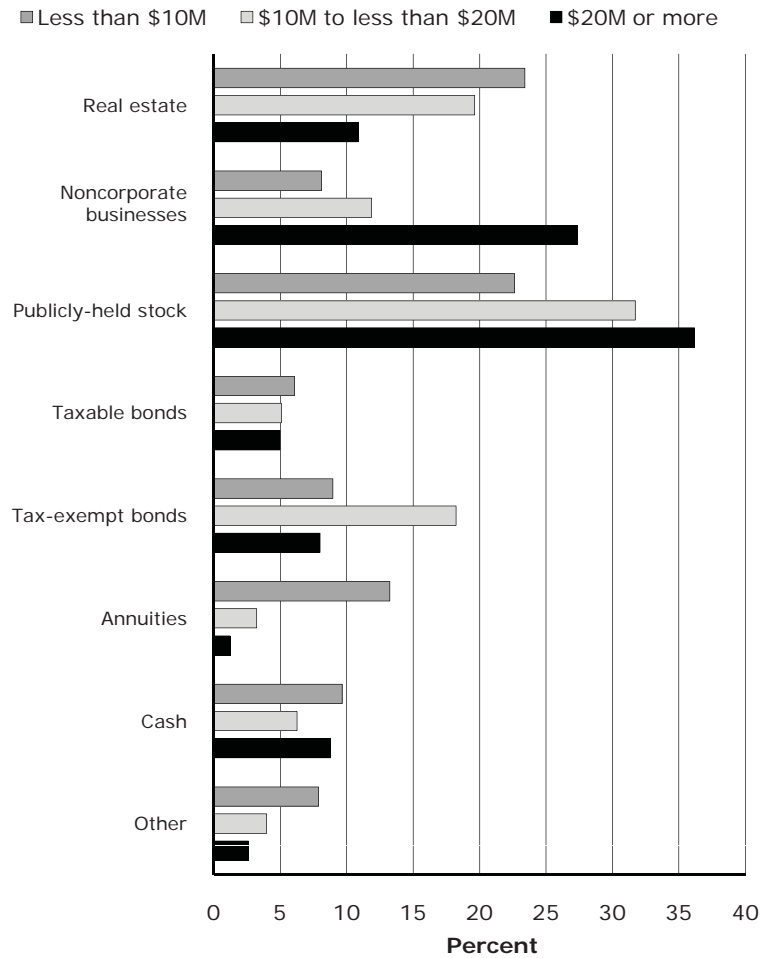
**Figure 5a. Wealth Allocation at End of Life, Single Filers, by Size of Gross Assets at Death**



assets across the three wealth groups for single filers.<sup>14</sup> The most striking result from Figure 5a is that about 75 percent of wealth is accounted for by financial assets, regardless of wealth group. Publicly traded stocks play a particularly important role in the portfolio for all wealth groups. The share of wealth held in stock is larger than the share for any other financial asset. For single filers with \$20 million or more in wealth, over 57 percent of their wealth is in stock. A somewhat different pattern of wealth allocation is

<sup>14</sup> Other assets include the value of art work and collectibles, the face value of life insurance, depletable or intangible assets, and tangible personal items.

**Figure 5b. Wealth Allocation at End of Life, Joint Filers, by Size of Gross Assets at Death**



evident for joint filers in Figure 5b. Financial assets account for at least 60 percent of wealth for joint filers, regardless of wealth group. Although stock accounts for the largest share of wealth among financial assets for this group, the share held in stock is somewhat balanced by the combined share held in noncorporate businesses and real estate. In general, joint filers exhibit a more diversified portfolio than single filers.

The diminished role of nonfinancial assets in the FPDD portfolio may be partly due to two factors. First, older filers may have divested their

portfolios of active business interests in order to simplify their estates and to ensure a smooth transition of closely held businesses. This may be especially true of the single filers in this panel since this group would include a significant number of widowed filers. Second, estate tax rules on valuing nonfinancial assets may have an effect. Assets such as noncorporate businesses and real estate can be subject to steep valuation discounts if there is no readily available market for them (Raub, 2008). Such discount rates typically range from 35 percent to 50 percent and are frequently used for noncorporate businesses, which can be very difficult to value, especially in cases where a decedent's expertise or reputation is considered a key business asset. Likewise, in some cases, business ownership interests are sufficiently divided among survivors so as to diminish the market for the decedent's share, especially if the decedent controlled less than 50 percent. Thus, there is likely a downward bias in the importance of nonfinancial assets in the wealth of filers in this sample.

The allocation of household portfolio instruments in the 1989 to 2004 SCF data, limited to those with \$1 million in wealth (in 2003 dollars) and with a household head age of 70 or older, provide a useful benchmark for evaluating trends observed in the FPDD. Regardless of these older, wealthier households in the SCF, on average, split their wealth roughly evenly between financial and nonfinancial assets. Publicly traded stock accounts for an average of about 25 percent of the wealth of these households across the survey years and almost 50 percent of financial assets. Real estate and businesses account for about 50 percent of wealth and about 90 percent of nonfinancial assets. Discounts on values reported in the FPDD for real estate and businesses may partially explain why financial assets account for a somewhat larger share of wealth in these data when compared to the SCF. Of course, definitional and methodological differences, as well as differences in population coverage between the SCF and FPDD, make the comparison less than straightforward.<sup>15</sup>

The findings that end-of-life wealth is heavily concentrated in financial assets and that income derived from those assets is an important part of total income in the years prior to death for the relatively wealthy filers in the FPDD highlight the interdependent link between income and wealth. These financial assets generate income flows that may be used for consumption or saved. Income that is saved, in turn, increases both wealth and potential future income. Of course, the link between income and wealth is blurred by assets that do not generate regular income flows, but instead accumulate value that is observed

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<sup>15</sup> See Johnson and Moore (2005) for more details.

only when the capital gains are realized through the sale of the asset. The realization of capital gains is often a key factor in explaining the variability of income for filers with high levels of wealth, especially as they near death. The tax treatment of these gains may explain a portion of this variability. In particular, while relatively low income tax rates on income derived from capital gains may encourage some to favor gain income over other types of taxable investment income, for others, U.S. estate tax law provisions may actually discourage the realization of capital gains.<sup>16</sup>

## Using Income To Predict Wealth

In an attempt to further understand the linkages between income as filers near death and end-of-life wealth, wealth as a function of income and other demographics can be modeled. The equation estimated by ordinary least squares (OLS) is:

$$(1) W_{iT} = \alpha + \sum_{j=1}^7 \sum_{t=1}^T \beta_{jt} X_{ijt} + \sum_{t=1}^T \lambda_t Z_{it} + \delta AD_i + \phi ADS_i + \sum_{d=1995}^{2003} \psi_d YRD_{id} + \varepsilon_i,$$

where  $W$  is end-of-life wealth,  $X$  contains the  $t$  years of the  $j$  income components,  $Z$  is real estate taxes paid during life,  $AD$  is age at death,  $ADS$  is age at death squared, and  $YRD$  are the  $d$  dummy variables for year of death. The coefficients estimated are  $\beta$ ,  $\lambda$ ,  $\delta$ ,  $\phi$ , and  $\psi$ . The regressions disaggregate noncorporate business income into four components: estate and trust, rent and royalty, business, and farm income.<sup>17</sup> The amount of real estate taxes paid (for itemizers) as a proxy for housing wealth is included. The regressions are weighted and estimated separately for each filing status/wealth group combination previously examined.

Table 4 presents an overview of the results from the regressions. The shaded cells with an asterisk are variables where at least one of the seven coefficients is significant at the 5-percent level. A common theme across all groups is the significance of taxable interest and dividends, tax-exempt interest, capital gains, and rent and royalty income. The proxy for housing wealth,

<sup>16</sup> The U.S. Estate Tax is often called a back-stop to the income tax, especially in its treatment of unrealized capital gains on investment assets. The estate tax is levied on the full value of assets on the date of a decedent's death, including all gains. In return, however, beneficiaries inherit these assets with a cost basis equal to the date of death value. Thus, taxable accumulated capital gains on assets owned by a decedent are effectively eliminated at death. Estate planners are able to significantly reduce overall tax liability through strategic management of a decedent's portfolio in the years prior to death.

<sup>17</sup> This is done to capture the variability in the components of business income. For example, a filer may have positive trust income which is partially offset by negative rental income. Using only the sum of these two components would mask the variability in the underlying components.



**Table 4. Wealth Regressions, by Filing Status and Wealth Category**

Variable	Single Filers			Joint Filers		
	Less than \$10M	\$10M to less than \$20M	\$20M or more	Less than \$10M	\$10M to less than \$20M	\$20M or more
Wages	*			*		*
Taxable interest/dividends	*	*	*	*		*
Tax-exempt interest	*	*	*	*		*
Capital gains/losses	*	*	*	*		*
Taxable SS/pension/annuity	*			*		
Estate/trust						
Real estate taxes	*	*		*		*
Rent/royalties	*	*		*	*	*
Business	*			*	*	
Farm	*			*		*
Other	*					*
R squared	0.75	0.86	0.80	0.37	0.29	0.66

NOTES: Shaded cells with an asterisk indicate at least one of the seven coefficients for each variable is significant at the 5-percent level. Regressions also contain age, age squared, and dummies for year of death.

real estate taxes paid, is also significant for most groups. Business and farm income is more likely to be significant for the lowest wealth groups. As one might expect, taxable Social Security, pension, and annuity income is only significant for the lowest wealth groups. These results reinforce the linkages observed between income and wealth in the univariate analyses.

To further test the relationship between end-of-life wealth and income near death, the regressions are used to predict wealth for filers in each of the filing status/wealth groups. To gauge the accuracy of the predictions, Table 5 compares a filer's actual wealth category to the wealth category implied using predicted wealth. The table is a transition matrix showing the fraction of filers in each actual wealth category who remained in the same wealth category, or moved up or down categories when

**Table 5. Actual versus Predicted Wealth Categories, by Filing Status and Wealth Category**  
Single Filers

Percentage of Filers		Predicted			
		Less than \$1M	\$1M to \$10M	\$10M to less than \$20M	\$20M or more
Actual	Less than \$10M	6.1	93.7	0.2	0.0
	\$10M to less than \$20M	0.0	0.5	99.2	0.3
	\$20M or more	11.4	9.6	14.1	64.9

Joint Filers

Percentage of Filers		Predicted			
		Less than \$1M	\$1M to \$10M	\$10M to less than \$20M	\$20M or more
Actual	Less than \$10M	0.1	99.9	0.1	0.0
	\$10M to less than \$20M	0.0	0.4	99.4	0.3
	\$20M or more	10.4	7.6	7.0	75.0

classified by predicted wealth. Note that there is an extra predicted wealth category of less than \$1 million. For actual wealth, the minimum gross wealth for inclusion in the sample is \$1 million.

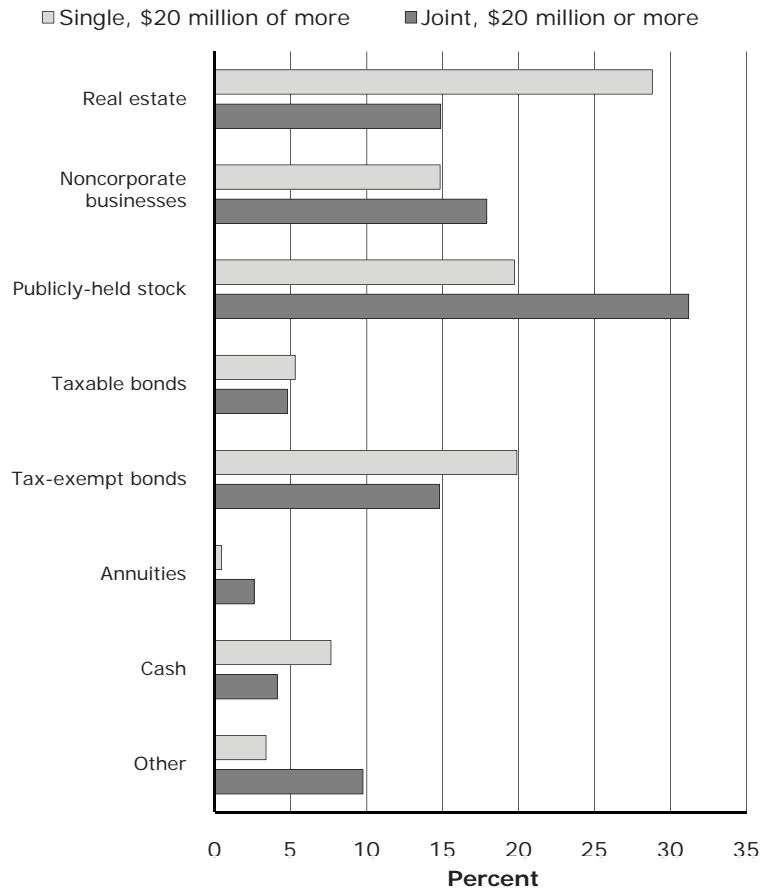
Focusing first on the grey shaded cells for single filers, over 90 percent of filers in the less than \$10 million and the \$10 to \$20 million actual wealth groups remained in the same group when classified by predicted wealth. For the \$20 million or more actual wealth group, almost two-thirds of filers remained in that group based on their predicted wealth. However, slightly more than 11 percent of filers in this group had predicted wealth of less than \$1 million.

The results for joint filers show a similar pattern, although the fraction of filers in the two lowest actual wealth groups that remained in the same predicted wealth group is over 99 percent. For the \$20 million or more actual wealth group, about three-fourths of filers remained in the same predicted wealth category. As with single filers in the top actual wealth group,

about 10 percent of the wealthiest joint filers had predicted wealth of less than \$1 million.<sup>18</sup>

The regressions have a fair amount of predictive power for the bottom two wealth groups, partly due to the bounded range of wealth for filers in each of those groups. For the top wealth group, the lack of an upper bound on wealth makes predicting wealth more difficult. The fact that some filers

**Figure 6. Wealth Allocation at End of Life, Filers with More than \$20 Million in Actual Wealth and Less than \$1 Million in Predicted Wealth**



<sup>18</sup> The regressions were estimated using average income and real estate taxes calculated for just two periods (the 7 years to 4 years prior to death and 3 years to 1 year prior to death), and separately using income and real estate taxes averaged over all 7 years. Both models yielded results similar to the original models. However, when models were estimated using the income and real estate tax variables for just 2 selected years (4 years and 2 years prior to death), the percentage of misclassified filers in the highest wealth group increased by about 20 percent.

in the top wealth groups have predicted wealth of less than \$1 million deserves some further investigation.<sup>19</sup> Figure 6 shows the portfolio allocation of actual wealth for these misclassified filers. For the single misclassified filers, real estate accounted for almost 30 percent of wealth. This is a much larger share than for all single filers in the top wealth group.

Tax-exempt bonds also accounted for a much larger percentage of total wealth for these misclassified single filers. For joint filers with actual wealth of \$20 million or more but predicted wealth of less than \$1 million, the share of wealth allocated to tax-exempt bonds and other assets is much larger than for all joint filers in the top wealth group. Real estate and other assets are each less likely to generate consistent yearly income flows and more likely to have accrued unrealized capital gains, which may explain the difficulty of predicting wealth from the income flows reported by these filers. It also appears that the model may significantly underestimate the value of tax-exempt bond holdings. Further analysis is planned to determine why the models underpredict wealth for some high wealth filers.

## Conclusion

This analysis of the FPDD has shown that mean income for the wealthiest U.S. decedents in the years prior to death places them above the 95th percentile in the overall U.S. distribution of income. However, the data also show that the incomes reported for these individuals can be quite volatile in the years leading up to death. This volatility seems to increase for joint filers and is likely due to market fluctuations, as well as the tax-planning and spending needs of these decedents. For these individuals, income is composed primarily of taxable and nontaxable investment income and capital gains income, with wage income, noncorporate business income, and taxable Social Security, pension, and annuity income having a smaller share in the total.

However, contrary to the predictions of life cycle models of savings, these individuals do not appear to be consuming out of savings, as evidenced by the relatively low share capital gains contribute to total income. There is some evidence of income shifting, moving investments from taxable income-producing assets to those that generate nontaxable interest, which typically means moving from investments with high rates of return to those with lower rates of return. Not surprisingly, data reported on U.S.

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<sup>19</sup> One measure of the accuracy of predicted wealth is the ratio of the mean absolute difference between actual and predicted wealth to mean actual wealth. For single filers, the ratios for the three wealth groups are .23, .04, and .47. For joint filers, the ratios for the three wealth groups are .35, .12, and .69.

estate tax returns for these wealthy individuals show portfolios heavily weighted toward financial assets, especially for those in the highest wealth category. For these individuals, investments in stocks make up one-third to one-half of total wealth.

Based on the regression results, longitudinal income data that are readily available from administrative records show some promise for predicting end of life wealth. The predictive capacity of the model presented suggests that it is possible to sort decedents into broad wealth categories with a fair degree of accuracy, using a relatively small number of income variables observed over a few years immediately preceding death. With refinement, this approach may provide a useful tool for measuring and addressing the potential estate tax filing gap.

It is especially encouraging that this approach seems to work well for single individuals in the lower wealth groups. Since estate tax law allows for an unlimited deduction for bequests to a surviving spouse, estates of married decedents generally elect to use this deduction to defer estate taxes until the death of the surviving spouse. Therefore, estates of widowed and single filers are most likely to incur an estate tax liability. In addition, decedents with wealth near the margins of the estate tax filing threshold are of particular interest when trying to identify potential nonfilers. Further research is needed to understand why the model performed less well for decedents in the highest wealth category and to better understand the interaction of income and wealth for joint filers.

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# Overcoming Overdisclosure: Toward Tax Shelter Detection\*

*Joshua D. Blank, Rutgers School of Law-Newark*

At the foot of the Wasatch Mountains about 10 miles east of the Great Salt Lake, the Internal Revenue Service searches for tax shelters. Inside its vast processing facility in Ogden, Utah, officials in the IRS Office of Tax Shelter Analysis sort through thousands of disclosure statements from taxpayers and their lawyers, accountants, and other advisors that provide details of complex transactions that IRS officials suspect might be abusive.<sup>1</sup> Because tax shelters at first may appear to comply with the literal text of the Internal Revenue Code and resemble real business deals, they often fail to raise red flags for IRS on their own.<sup>2</sup> In response to this detection obstacle, the tax law mandates that taxpayers and their advisors disclose to the IRS instances in which they participate in a myriad of transactions that bear tax shelter traits.<sup>3</sup>

Commentators have praised the tax shelter reporting rules as a “powerful tax enforcement tool” that leads to “enhanced compliance.”<sup>4</sup> Some former top Government officials have even boldly declared that as a result of these rules, “the tax shelter war is over” and “[t]he Government won.”<sup>5</sup> When the mandatory disclosure regime works well, it provides IRS with a valuable audit roadmap, enabling it to detect abusive tax planning that would otherwise remain hidden. Mandatory disclosure can provide taxpayers and their advisors with early warnings of the tax positions that IRS will challenge. The reporting rules also chill the market for tax strategies that must be disclosed to IRS.<sup>6</sup>

In contrast to this largely positive portrayal, this article argues that the current tax shelter disclosure law is incomplete. While the primary aim of current law is to deter nondisclosure of information by taxpayers and advisors, my claim is that the Government should also strive to prevent behavior that is just as problematic to IRS’s ability to detect and challenge tax shelters—overdisclosure of information. As this article demonstrates, since the introduction of the tax shelter reporting rules in 2000, taxpayers and advisors have frequently disclosed to IRS their participation in routine, nonabusive transactions or details of activities that are irrelevant to tax shelter detection. After investigating the sources of overdisclosure, I conclude that the tax law

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itself invites this response from distinct types of taxpayers and advisors. Conservative types overdisclose out of excessive caution, while aggressive types overdisclose in an attempt to avoid detection of abusive tax planning. Other scholars have acknowledged the hypothetical potential for overdisclosure in response to the mandatory tax shelter disclosure regime, but none has thoroughly addressed why overdisclosure may occur or whether or how it may be avoided.<sup>7</sup> This article thus provides the first rigorous investigation of the sources of overdisclosure in the context of tax shelter reporting and offers strategies, absent from current law, for preventing the overdisclosure response.

The overdisclosure response poses serious threats to tax administration. When the IRS receives disclosure statements regarding complex transactions that lack tax avoidance motivation, its agents must investigate and distinguish these transactions from those that actually are abusive. This distraction slows IRS's investigations of truly abusive transactions, delaying statutory responses to tax avoidance strategies. Further, the substantial time that taxpayers and their advisors spend preparing and filing unnecessary disclosure statements represents wasteful behavior.<sup>8</sup>

Overdisclosure is a natural reaction from conservative, cautious taxpayers and advisors. The categories of transactions that taxpayers and advisors must disclose are broad: IRS requires disclosure not only of specifically described transactions, but also involvement in any arrangements that may result in "similar" tax consequences or involve "similar" fact patterns.<sup>9,10</sup> IRS has often been slow to explain how the tax shelter reporting rules should be applied in uncertain situations. Because the penalties for failing to comply with the mandatory disclosure regime are severe, and apply on a strict liability basis, the breadth of current law causes conservative taxpayers and advisors to provide more rather than less information when in doubt.<sup>11,12</sup>

For aggressive taxpayers and advisors—those who push the envelope by claiming the riskiest tax positions—overdisclosure provides an attractive strategy for avoiding IRS detection of abusive tax planning. By reporting a multitude of nonabusive transactions along with their most questionable tax positions, aggressive taxpayers and advisors may believe that they will escape high penalties for nondisclosure without increasing the likelihood that IRS will detect and challenge their abusive transactions.<sup>13</sup> Further, aggressive taxpayers and advisors may be emboldened by the tax law's explicit endorsement of their behavior.<sup>14</sup> Finally, after hearing frequent public state-

ments by IRS officials that the Service has received too much information in response to some of its disclosure requests, aggressive types may seize on the overdisclosure strategy as a way to avoid IRS detection.<sup>15</sup>

How can overdisclosure be overcome? I propose three novel changes to the substantive tax law that could enable the Government to address the overdisclosure response proactively.

First, IRS should revisit its approach to designating tax strategies as listed transactions, the types of tax strategies that the Government considers to be most blatantly at odds with Congress's intent.<sup>16</sup> Under the current regime, tax strategies that IRS does not intend to cover are noticeably absent from IRS's announcements of new listed transactions.<sup>17</sup> In contrast, I propose that before designating a tax strategy as a listed transaction, IRS officials should endeavor to compile a list of clearly nonabusive transactions that the most scrupulous conservative taxpayers and advisors might find substantially similar to it. Under the proposal, when IRS designates a strategy as a listed transaction, it would include in its announcement an anticipatory angel list of some of these nonabusive transactions, exempting them from mandatory disclosure.

Next, taxpayers and advisors who overdisclose should face targeted monetary penalties. While current Federal tax law contains high monetary and nonmonetary penalties for taxpayers and advisors who fail to file required disclosure statements, it contains no explicit penalties for those who, either out of caution or malice, file unnecessary statements.<sup>18</sup> As opposed to the status quo, my proposal would impose a monetary penalty on any taxpayer or advisor who discloses a transaction included on an angel list. My proposal would, however, exempt from this penalty any taxpayer or advisor who had sought and received a private letter ruling from IRS permitting disclosure of the transaction at issue. The proposed overdisclosure penalty would supplement, not replace, the nondisclosure penalties under current law.

Last, IRS should reconsider the type of information it requires taxpayers to provide in their disclosure statements. As this article illustrates, the current disclosure model relies heavily on the taxpayer's written description of a transaction, a description that can be lengthy and complex.<sup>19</sup> In contrast to this model, I suggest that IRS require corporate and partnership taxpayers to provide certain nontax documentation, such as written descriptions of disclosed transactions that the taxpayers prepared for actors other than IRS, such as chief executive officers, boards of directors, shareholders, or partners. This approach, I argue, would better enable IRS to sort abusive transac-

tions from nonabusive ones and could discourage taxpayers from filing unnecessary disclosure statements.

## The Search for Tax Shelters

### The Elusive Nature of Tax Shelters

An abusive tax shelter is a tax strategy that produces amazing tax benefits that Congress never envisioned, but that seem to flow, at least on a strict constructionist reading, from the text of the Internal Revenue Code. At first glance, tax shelters resemble legitimate business deals that ought to receive the tax treatment claimed. As prominent tax lawyer Peter Canellos once commented, “tax shelters bear a relationship to real transactions analogous to the relationship between money laundering and banking.”<sup>20</sup> The close resemblance between a real business deal and a tax shelter is what makes IRS’s task of detecting abusive tax planning so difficult.

Consider, for example, the following stylized version of a popular tax shelter strategy that was widely used by America’s most well-known corporations in the late 1990s:<sup>21</sup>

In 1999, Blue Chip Co., a large Fortune 500 corporation, sold stock of one of its portfolio investment companies in the open market and earned a \$50-million profit on the sale. This was wonderful news to the managers of Blue Chip Co., except for one pesky detail—the \$50-million gain was subject to the Federal corporate income tax.<sup>22</sup>

Tax Director, who was responsible for Blue Chip Co.’s tax planning and compliance, quickly arranged a meeting with Accountant. After Tax Director signed a confidentiality agreement, Accountant described how Blue Chip Co.’s \$50-million taxable gain could vanish if Blue Chip Co. engaged in a series of transaction steps otherwise known as the “contingent liability” tax strategy. On Accountant’s advice, Blue Chip Co. incorporated a new subsidiary corporation (Sub), contributed \$51 million in cash plus \$50 million worth of healthcare claims that were outstanding against Blue Chip Co. to Sub, and then, days later, sold the stock of Sub to a trust created by Blue Chip Co. for its fair market value, \$1 million, in cash.<sup>23</sup> Accountant guaranteed Tax Director that these steps would allow Blue Chip Co. to claim a tax loss that—like magic—would cause Blue Chip Co.’s \$50-million taxable gain to disappear. So sure was Accountant of the validity of this tax position that he

promised to refund his own \$1 million fee if IRS successfully challenged the tax position.<sup>24</sup>

When Tax Director filed Blue Chip Co.'s 1999 annual tax return with IRS, he did not report the contingent liability transaction described above or any of his dealings with Accountant. Nor did Tax Director reveal the technical interpretation of the tax law that enabled Blue Chip Co. to claim a \$50-million tax loss on the sale of the Sub stock for \$1 million.<sup>25</sup> And Tax Director certainly did not disclose that Blue Chip Co. did not actually lose \$50 million in this transaction.

Not until IRS audited the tax return of Blue Chip Co. several years later did its agents uncover the facts surrounding the transaction. In the audit, IRS agents questioned Tax Director about Blue Chip Co.'s sale of the Sub stock and requested all documentation related to the transaction. IRS determined that the principal purpose of Accountant's transaction was for Blue Chip Co. to enjoy a valuable tax benefit. As IRS and, later, the courts would determine, the contingent liability transaction was an abusive tax shelter, a transaction that lacked "economic substance" and was inconsistent with Congress's intent.<sup>26</sup>

But by the time IRS understood the true nature of Blue Chip Co.'s transaction, hundreds of other taxpayers had met with Accountant and also pursued the contingent liability transaction to claim large tax losses.<sup>27</sup> What made this particular tax strategy so popular was that, precisely as Accountant had suggested, it appeared to be "perfectly legal," fitting squarely within the technical language of the tax law.<sup>28,29</sup> No specific statutory rule, at that time, prevented Blue Chip Co. from claiming its tax loss.<sup>30</sup>

## **Red Flag Requirements**

The widespread use of tax shelters like the contingent liability strategy imposes social costs. When taxpayers engage in abusive tax planning, the Government loses revenue. Congress may then respond by increasing the tax rates that apply to other taxpayers.<sup>31</sup> From an economic perspective, tax shelter planning is wasteful because individuals dedicate effort to exploiting ambiguities in the tax law rather than producing anything of value apart from tax savings.<sup>32</sup> And frequent newspaper stories of tax shelter activity may decrease overall taxpaying morale and, in turn, tax compliance, as taxpayers who do not use shelters feel like "chumps" for paying more taxes than necessary.<sup>33</sup>

Without help from taxpayers and the individuals who advise them, IRS would face significant obstacles in detecting tax strategies like the contingent liability transaction discussed above. Current law, consequently, imposes an obligation on taxpayers and their advisors to raise red flags for IRS when they participate in transactions that bear tax shelter traits.<sup>34</sup>

The law requires taxpayers to file a disclosure statement with the IRS Office of Tax Shelter Analysis at its processing facility in Ogden, Utah, if they have participated in any “reportable transaction” during the taxable year.<sup>35</sup> Agents in this office review filings by taxpayers and advisors and determine whether a particular tax avoidance strategy merits attention from high-level IRS officials.<sup>36</sup>

The following transactions are reportable transactions under the tax shelter disclosure rules:

**Listed Transactions.** The most specific type of tax strategy that taxpayers must disclose to IRS is a “listed transaction.”<sup>37</sup> A tax strategy is only a listed transaction if the Government explicitly describes it as such. Colorfully named strategies that the major accounting firms marketed to taxpayers in the late 1990s, like COBRA (currency options bring reward alternatives) and PICO (personal income company), as well as the contingent liability transaction, occupy this list.<sup>38,39,40</sup> These are the strategies that the Government considers to be most clearly at odds with Congressional intent. In many cases, courts have confirmed the IRS’s view.<sup>41</sup> Taxpayers must disclose to IRS any participation in a listed transaction or “substantially similar” transaction.<sup>42</sup>

The “substantial similarity” standard enables IRS to receive necessary information about certain abusive tax strategies. Without this requirement, taxpayers and advisors could easily avoid any disclosure obligation by tweaking a potentially abusive tax strategy to distinguish it from the listed transactions.

**Transactions of Interest.** Taxpayers must also report their participation in any strategy that IRS describes as a “transaction of interest” or any substantially similar transaction.<sup>43</sup> This category is designed to give IRS flexibility to investigate arrangements “for which IRS and Treasury Department lack enough information to determine whether [they] should be identified specifically as tax avoidance transaction[s].”<sup>44</sup>

**Confidential Transactions and Transactions with Contractual Protection.** Tax shelter promoters may attempt to protect their tax shelter strategies from spreading too quickly by forbidding taxpayers who buy them from revealing the details to anyone else.<sup>45</sup> In addition, to entice buyers, tax shelter promoters may promise taxpayers refunds of their fees if IRS rejects the strategies on audit.<sup>46</sup> As a result, the law requires taxpayers to disclose

transactions where they have rights to refunds of fees if promised tax consequences do not materialize or where a highly paid advisor limits their ability to describe the details of tax advice to others.<sup>47</sup>

**Loss Transactions.** Many tax shelters seek to shift taxable income to a tax-exempt party, enable the use of tax credits, or generate a tax-deductible loss. For this reason, the last category of reportable transactions requires taxpayers to disclose “loss transactions,” which consist of certain sales or exchanges of stock, assets, and other property that lead taxpayers to claim large losses for tax purposes (\$10 million in the case of corporations and \$2 million in the case of individuals).<sup>48</sup>

The disclosure requirements described above apply not only to the taxpayers who engage in reportable transactions, but also to the lawyers, accountants, and others who advise them. If an advisor recommends a reportable transaction in exchange for a minimum fee and the taxpayer actually pursues the transaction, the advisor is characterized by the law as a “material advisor.”<sup>49,50</sup> Every material advisor must file a disclosure statement with the Office of Tax Shelter Analysis describing the reportable transactions he or she recommended in exchange for a minimum fee.<sup>51</sup> In addition, every material advisor must maintain a list of the taxpayers who have caused him or her to be characterized as a material advisor.<sup>52</sup> IRS may request this list at any time.<sup>53</sup>

## The Appeal of Mandatory Disclosure

Government officials and academics have widely praised the disclosure approach as an effective response to the tax shelter problem.<sup>54</sup> They have argued that mandatory disclosure rules fortified by monetary penalties aid the audit process, chill participation in abusive tax strategies, and serve as an early warning system for lawmakers. Each of these justifications for the mandatory disclosure regime is discussed below.

**Audit Roadmap.** If taxpayers and their advisors were not obligated to provide some clues to IRS, the field agents who initially review taxpayers’ returns would have a difficult time detecting questionable tax positions.

Sophisticated tax shelter strategies often appear to comply with the letter of the tax law and certainly do not take the form of tax-protestor-type arguments.<sup>55</sup> In the example of Blue Chip Co.’s contingent liability tax shelter, all that would have appeared to the naked eye of an IRS agent reviewing Blue Chip Co.’s tax return would be a \$50-million tax-deductible loss on Schedule D of IRS Form 1120, along with many other capital gains and losses resulting from Blue Chip Co.’s sales of stock, bonds, and real estate during the year.<sup>56</sup>

In addition, some taxpayers, especially corporations and partnerships, file tax returns that are simply enormous. General Electric Corp.'s 2006 annual tax return and accompanying schedules, for instance, were the equivalent of over 24,000 pages.<sup>57</sup> Further, many individual and business taxpayers are still permitted to file their tax returns on paper, rather than in electronic form.<sup>58</sup> The massive amount of information in some tax returns, coupled with the limited audit resources of IRS, presents serious challenges to detection.

Mandatory disclosure is thus designed to provide an important "audit roadmap" to IRS.<sup>59</sup> For example, as mentioned, under current law, a taxpayer is now required to alert IRS if the taxpayer uses a tax strategy sold by a tax shelter promoter who promised a money-back guarantee in the event of an audit.<sup>60</sup> The required disclosure statement may lead the IRS agent who initially reviews this tax return to select it for audit and quickly issue an information document request to the taxpayer.<sup>61</sup> This enables IRS to collect pertinent information regarding the transaction, which may result in a successful challenge of the tax benefits claimed.

**Early Communication.** The mandatory disclosure regime also serves an important communication function. IRS typically releases a public announcement or notice when it designates a tax strategy as a listed transaction or transaction of interest.<sup>62</sup> These announcements describe the mechanical details of the scheme at issue, so that taxpayers and advisors know what to disclose. IRS also uses these announcements to present its reasoning for why the underlying tax strategy is inconsistent with Congressional intent or would fail in court under the economic substance, business purpose, or other judicial doctrine. IRS can issue such notices quickly, without waiting for public comment or congressional approval.<sup>63</sup> The need for frequent public guidance in a mandatory disclosure regime thus provides a quick and dirty way for IRS to express its early condemnation of abusive tax strategies before their use spreads.

**Chilling Effects.** Finally, mandatory disclosure may deter taxpayers and advisors from pursuing tax strategies that are, or that may become, reportable transactions in the future. When IRS announces that a tax strategy is potentially abusive and, in turn, subjects it to mandatory disclosure requirements, use of that strategy ceases. As the New York State Bar Association Tax Section has noted, "listed transactions have acquired a type of stigma. Many taxpayers have a written policy against engaging in any listed transaction, and it appears that some malpractice insurers want to know whether their insureds provide advice with respect to listed transactions."<sup>64</sup> Instead of pursuing tax strategies that IRS has already designated as listed transactions or transactions of interest, most sophisticated taxpayers prefer to exploit gaps in the tax law that have yet to appear on IRS's radar screen.<sup>65</sup>



## The Overdisclosure Response

Despite the appeal of mandatory disclosure as a way to bolster IRS's ability to detect and challenge abuse, this approach is subject to a serious vulnerability: Taxpayers and their advisors may provide too much information to IRS. If taxpayers and advisors disclose information about transactions that are complex yet clearly not abusive, or transaction details that do not reveal underlying abuse, the mandatory disclosure regime fails to accomplish one of its principal purposes: helping IRS find tax shelters. In the words of one IRS official, "if the default approach becomes disclosing every transaction, 'the system is not going to work.'"<sup>66</sup>

While commentators in the past have occasionally discussed the risk of overdisclosure in hypothetical terms, IRS's experience since implementing the mandatory disclosure regime in 2000 confirms that the overdisclosure problem is more than mere academic conjecture.<sup>67</sup> The number of disclosure statements submitted to IRS appears to have increased dramatically in recent years. In 2007, an official at the IRS Office of Tax Shelter Analysis stated that the number of reportable transaction disclosure statements received by his office since 2004 had increased by over 7,300 percent and that "maintaining the right number of disclosures and making sure they were all appropriate was a challenge."<sup>68</sup>

Data available from State taxing authorities strongly implies, however, that IRS has experienced a much greater increase in the submission of reportable transaction disclosure statements. Several States require taxpayers who file reportable transaction disclosure statements with IRS to file a similar, if not the same, statement with the State taxing authority.<sup>69</sup> For Tax Years 2005 and 2006, the New York State Department of Taxation and Finance announced that it received over 28,000 reportable transaction disclosure statements from individual and corporate taxpayers.<sup>70</sup> Because New York requires taxpayers to file a copy of the very same reportable transaction disclosure statement that they filed with IRS, this figure reveals the number of statements that the IRS Office of Tax Shelter Analysis most likely received just from taxpayers in a single State over a 2-year period. It is especially striking considering that, prior to 2004, the number of disclosure statements that IRS received from taxpayers and advisors on a nationwide basis each year often numbered in the hundreds, not thousands.<sup>71</sup>

## What Is Overdisclosure?

Even the most ardent supporters of the mandatory disclosure regime concede that there are limits to its value. Dennis Ventry, for instance, has written that



“[o]f course, there is such a thing as too much disclosure, where the Government cannot process the information or the taxpayer is overburdened by the requirements.”<sup>72</sup> The question, then, is how much and what type of information is too much?

If IRS operated with an unlimited budget and bench of specialized experts, there would be no harm in the submission of disclosure statements or accompanying materials that do not have a reasonable chance of exposing tax shelters. IRS would simply discard that information and focus instead on disclosure statements that may reveal the details of potentially abusive tax strategies.

Unfortunately, this characterization of the tax shelter landscape is far from realistic, as IRS operates with both a limited budget and limited staff.

IRS’s limited funds have, in recent years, forced field agents of the IRS’s Large and Mid Size Business Division to reduce the length of audits of large corporate and other business taxpayers.<sup>73,74</sup> In Fiscal Year 2007, for example, IRS’s audit rates of the largest corporate taxpayers dropped to its lowest level since the late 1980s.<sup>75</sup>

And despite IRS’s description of the Office of Tax Shelter Analysis as a sophisticated command-and-control center capable of reviewing thousands of taxpayer and advisor disclosure statements, its staff, according to public reports, is of surprisingly modest size.<sup>76,77</sup> Describing the challenges that this unit faces at a U.S. Senate hearing in 2003, Calvin Johnson colorfully testified, “I doubt their total annual budget would cover the annual Holiday Parties for the Skunk Works factories they are competing against.”<sup>78</sup>

In light of these constraints on IRS, when taxpayers disclose information that is not relevant to the detection of abusive tax planning, the mandatory disclosure regime may have the opposite of its intended effect. As a Treasury Department official once described the problem, “Overdisclosure transactions are the transactions that don’t have the potential for abuse. They not only place a burden on taxpayers, but also place a burden on the Service.”<sup>79</sup> Instead of helping field agents detect known abusive strategies, or even better, discover new strategies IRS is not yet aware of, excessive disclosure statements may distract IRS and consume valuable audit resources.

But exactly what type of information constitutes overdisclosure?

Imagine that a corporation files a disclosure statement with IRS and also attaches its last ten annual reports, consisting of hundreds of pages, which are required to be filed with the U.S. Securities and Exchange Commission. Some of this information, such as lengthy descriptions of

officer biographies and current industry trends, concerns “transactions that don’t have the potential for abuse.”<sup>80</sup>

IRS agents reviewing this submission would likely discard the annual reports as irrelevant and instead focus on the written discussion from the taxpayer. Surely overdisclosure cannot encompass all information that fails to reveal potentially abusive tax strategies.

Overdisclosure, rather, must not only fail to reveal potential abuse, but must also consume enough attention of IRS agents to “place a burden on the Service.”<sup>81</sup> As opposed to hundreds of pages of publicly available annual reports, the types of disclosure statements that burden the Service are those describing highly complex transactions, which not only likely comply with a technical reading of the tax law, but also the underlying intent of Congress. The difference between these types of disclosure and the information described above is that IRS cannot easily discard them as irrelevant to tax shelter detection.

The most comprehensive definition, then, is that overdisclosure is the submission of information that (1) fails to report participation in a potential tax shelter, and that (2) IRS cannot easily identify as failing to report participation in a potential tax shelter.

## Examples of Overdisclosure

Overdisclosure can occur in a variety of ways. This subpart offers concrete examples of the types of overdisclosure that IRS has received from taxpayers and their advisors since the introduction of the mandatory tax shelter reporting regime in 2000.

### Nonabusive Reportable Transactions

As IRS officials have complained, when IRS issues rulings that require taxpayers to disclose participation in specific abusive tax strategies, the Service frequently receives many disclosure statements regarding uncontroversial, nonabusive business activities.<sup>82</sup> In a 2006 meeting of the Tax Executives Institute, an industry association of corporate tax directors, a lead IRS lawyer commented that “[t]oo many routine business transactions are being reported to IRS.”<sup>83</sup> The following taxpayer and advisor reactions illustrate this type of overdisclosure.

***Intermediary Corporation Tax Shelter.*** IRS’s initial attempts to collect information regarding the intermediary corporation tax shelter led many taxpayers and advisors to file disclosure statements regarding real, nontax-motivated business deals.<sup>84</sup>

The intermediary corporation tax shelter was a real sale between a buyer and seller that was structured “in a ‘funny’ way . . . to achieve tax benefits clearly unintended by Congress.”<sup>85</sup>

In a typical structure, a corporation (Seller) owned stock in a target corporation (Target) that itself owned an appreciated asset, such as real estate, which another corporation (Buyer) desired to own. If Buyer were to purchase the stock of Target from Seller, Target would continue to hold real estate with a built-in taxable gain waiting to be recognized, and, if Buyer were to purchase the real estate directly from Target, Target would incur immediate taxable gain.

To alleviate this potential tax cost, Seller would sell its stock in Target to an intermediary corporation (Intermediary) that had large tax losses or credits. Intermediary would then quickly cause Target to sell its real estate to Buyer.<sup>86</sup> After the dust settled, Intermediary and Target would file tax returns on a consolidated basis for Federal income tax purposes.<sup>87</sup> The parties claimed that Seller recognized taxable gain only on the sale of Target stock to Intermediary, that Buyer held the real estate with a tax basis equal to its fair market value, and last, that Intermediary did not bear any tax liability because its tax losses or credits offset the tax gain of Target.<sup>88</sup>

After learning that accounting firms had been actively marketing the intermediary corporation tax shelter, IRS designated this tax strategy as a listed transaction in Notice 2001-16, thus subjecting it to mandatory disclosure.<sup>89</sup> IRS argued that Intermediary should be disregarded or treated as an agent of Seller, and furthered other theories that would cause Seller to be “properly characterized” as selling the assets of Target directly to Buyer.<sup>90</sup> The types of transactions IRS attempted to describe were parties’ coordinated efforts to structure their transactions to avoid Federal income tax, but not serve any other real business purpose. In one case pending at the time of IRS’s notice, taxpayers had used a Native American tribe as the intermediary, and the tribe caused the entity it acquired from the selling corporation to dispose of its assets within 10 minutes of its purchase.<sup>91</sup>

In the years following IRS’s designation of the intermediary corporation tax shelter as a listed transaction, however, some taxpayers and advisors responded by disclosing routine business transactions lacking abuse potential.<sup>92</sup> Taxpayers disclosed ordinary sales of stock in which the purchaser happened to be a tax-exempt organization or a corporation with substantial tax credits.<sup>93</sup> IRS did not intend to require disclosure of these types of transactions because they were motivated by real business purposes, not mere tax avoidance. Yet tax lawyers advised their clients to be wary that a “seller of corporate stock [could] become an unwitting participant in a ‘listed transaction’ shelter

if its buyer happened to resell the assets of the acquired entity in a transaction that was sheltered by the buyer's pre-existing tax benefits."<sup>94</sup>

After reviewing the types of disclosure statements it received, IRS acknowledged that its notice "identifying the transaction based on the role of an entity that appears to be an intermediary may result in overdisclosure."<sup>95</sup>

**Notional Principal Contract Tax Shelters.** The reaction of taxpayers and advisors to IRS's designation of a tax strategy involving "notional principal contracts" as a listed transaction provides another example of the overdisclosure response.<sup>96</sup>

This strategy enabled taxpayers to exploit the rules governing notional principal contracts, and claim large tax-deductible losses that could be used to offset other unrelated taxable income.<sup>97</sup> Two parties, A and B, would enter into a contract lasting more than a year, in which A would make periodic payments to B based on a fixed or floating rate multiplied against a notional principal amount. B, in turn, would make a single back-end payment at the end of the contract to A. The key to this tax shelter was the structure of B's back-end payment. A large part of the payment would consist of a noncontingent component (for example, part of the payment would be based on a specific fixed rate index), and a much smaller part of B's back-end payment would consist of a contingent component (for example, it could depend on the market value of certain stock). By structuring the back-end payment from B to include both noncontingent and contingent components, A would claim tax deductions for its payments to B currently and would not accrue any of the back-end payment in income until it received it from B.<sup>98</sup> In many cases, the parties would terminate the contract prior to B's scheduled back-end payment, and A would simply report its gain or loss on the termination of the swap agreement as a capital gain or loss.

In 2002, IRS announced that this type of highly engineered notional principal contract was a listed transaction.<sup>99</sup> As a substantive legal matter, IRS ruled in Notice 2002-35 that the tax law required taxpayers to accrue in income the noncontingent portion of B's back-end payment "in a manner that reflects the economic substance of the contract" and that IRS would challenge the strategy by applying various substance-over-form recharacterizations.<sup>100</sup>

In response to IRS's notice, the Service was overwhelmed by a "flood of disclosures" from taxpayers and advisors regarding "plain vanilla" total return equity swaps and other nonabusive swap agreements.<sup>101</sup> A total return equity swap is like the notional principal contract described above, except that the back-end payment is wholly contingent. In a total return equity swap, A makes payments to B during the term of the contract, and, at the end of the contract, B makes a back-end payment to A that is based

solely on some contingency, such as the market change in the value of a certain company's stock.<sup>102</sup> The total return equity swap is a customary commercial transaction motivated by genuine business purposes, not one engineered to achieve tax avoidance.<sup>103</sup>

In 2006, IRS conceded publicly that its notice had "caused taxpayers to file large numbers of disclosure statements on Form 8886, Reportable Transaction Disclosure Statement, for common transactions, such as total return swaps, that are entered into for bona fide nontax purposes."<sup>104</sup>

***Transactions with Tax Insurance.*** A final example of overdisclosure of nonabusive reportable transactions is the response from taxpayers and advisors to the Treasury's initial request for disclosure of transactions in which the expected tax results were protected by tax insurance.

A taxpayer who engages in aggressive tax planning may purchase tax insurance from third-party carriers in an attempt to minimize potential expected cost in the event that IRS successfully challenges claimed tax benefits.<sup>105</sup> In an early version of the tax shelter reporting rules released in 2002, the Treasury required taxpayers to disclose their participation in any transaction "for which the taxpayer has . . . contractual protection against the possibility that part or all of the intended tax consequences from the transaction will not be sustained."<sup>106</sup>

After the release of these regulations, taxpayers disclosed their participation in routine, nonabusive business transactions for which they had purchased tax insurance. Taxpayers who had purchased tax insurance in connection with like-kind exchanges, for example, disclosed participation in these exchanges to IRS, even though Congress specifically intended for these transactions to convey beneficial tax treatment.<sup>107</sup> Other taxpayers reported legitimate business transactions, such as mergers between public corporations, where one party to the transaction had agreed to indemnify the other party for certain tax liabilities.<sup>108</sup>

After reviewing disclosure statements from taxpayers and advisors, the Treasury acknowledged the overdisclosure response, commenting that many taxpayers had interpreted the rules to require "numerous legitimate business transactions with tax indemnities [as] subject to reporting."<sup>109</sup>

### **Unnecessary Protective Disclosures**

As I will argue shortly, IRS received many of the unnecessary disclosure statements described above because some taxpayers and advisors believed that the disclosed tax strategies were reportable transactions.<sup>110</sup> But taxpayers and advisors may also file these types of disclosure statements with IRS on a protective basis in cases where they are unsure whether disclosure is even required.

The tax shelter reporting rules specifically authorize the filing of protective disclosure statements whenever taxpayers and advisors are “uncertain whether a transaction must be disclosed.”<sup>111</sup> The only condition is that taxpayers and advisors must provide IRS with as much information in a protective disclosure statement regarding the disclosed transaction as they would in an ordinary disclosure statement required by law.<sup>112</sup>

Taxpayers and advisors may choose to file a protective disclosure statement for two reasons:

First, filing protective disclosure statements with IRS shields taxpayers and advisors from high monetary penalties for failing to disclose reportable transactions.<sup>113</sup>

Second, filing protective disclosure statements relates to tax accrual work papers, documents a taxpayer prepares for internal use that reveal which tax positions the taxpayer believes are most questionable. For obvious reasons, taxpayers would rather not share these documents with IRS. If a taxpayer discloses participation in a listed transaction, or a substantially similar one, IRS will automatically request the taxpayer’s tax accrual work papers.<sup>114</sup> IRS has indicated, however, that, if a taxpayer files a protective disclosure statement and explains why the disclosed transaction is not substantially similar to a listed transaction, IRS may take a less aggressive stance and not request tax accrual work papers.<sup>115</sup>

Many taxpayers have filed protective disclosure statements with IRS regarding legitimate, nonabusive business transactions, rather than tax shelters.<sup>116</sup> For example, after IRS issued its notice regarding notional principal tax shelters, one commentator noted that because hedge funds “engage in a variety of transactions . . . that may resemble reportable transactions[,] . . . hedge funds, as a common practice, have filed a protective Form 8886 even if they believed that the transaction was not listed or abusive.”<sup>117</sup> IRS and Treasury officials have confirmed that, since the enactment of monetary penalties for failure to disclose a reportable transaction, “[p]eople are making a lot of protective disclosures,” and “[s]ome are filing protective disclosures when they don’t have to.”<sup>118,119</sup>

### **Extraneous Details and Documentation**

A final category of overdisclosure is the filing of disclosure statements containing excessive details or documents that are extraneous to the underlying tax strategies.

A taxpayer who discloses participation in a potential tax shelter to IRS must also provide a description of the transaction and the taxpayer’s view of expected tax treatment. The form a taxpayer files to disclose a reportable

transaction, Form 8886, contains several lines for describing any expected tax benefits, as well as the related steps of the transaction.<sup>120</sup>

Some taxpayers provide so much information in their descriptions that IRS may be unable to determine solely from the disclosure statements whether the transactions have abuse potential.<sup>121</sup> Many taxpayers have broadly interpreted IRS's instructions to "[i]nclude facts of each step of the transaction . . . regardless of the year entered into."<sup>122</sup> As a consequence, they may describe many aspects of their transactions that do not relate to the heart of a potentially abusive tax strategy. Even though Form 8886 has only seven lines for describing disclosed transactions, taxpayers routinely write "see attached pages" at the end of this space and then attach many pages to the disclosure form.<sup>123</sup> Indeed, IRS's instructions explicitly allow for these attachments.<sup>124</sup>

Some tax advisors engage in similar overdisclosure. Advisors are required under current law to maintain lists of any taxpayers for which they serve as material advisors, meaning they have recommended reportable transactions, been paid a minimum threshold fee, and met other requirements.<sup>125</sup> When IRS has sought tax shelter investor lists from advisors, many of them have "merely provid[ed] boxes of documents in response to the list maintenance requests."<sup>126</sup> At a public hearing in 2007, an official from the IRS Office of Associate Chief Counsel confirmed that one challenge IRS has faced in soliciting information from advisors is that "many of the disclosures are incomplete or provid[e] boxes of documents without an index."<sup>127</sup>

## Threats to Tax Administration

Overdisclosure poses serious threats to the effective and efficient administration of the tax system: it distracts IRS from detecting abuse, slows the enactment of statutory solutions, and constitutes wasteful taxpayer behavior.

**Detection Distraction.** Unnecessary disclosure statements consume valuable IRS resources that could otherwise be allocated to the detection of abusive tax activity. Every reportable transaction disclosure statement is, in theory, subject to several levels of internal review within IRS.<sup>128</sup> But, more importantly, it is often impossible to distinguish a disclosure statement concerning an abusive tax shelter from one describing an ordinary, nonabusive transaction without thorough analysis and, often, followup questions to the taxpayer or advisor who filed the statement.

For example, a taxpayer who sold stock to a tax-exempt entity may file a disclosure statement with IRS reporting participation in an intermediary corporation tax shelter—a listed transaction.<sup>129</sup> There may be no way for IRS



agents in the Office of Tax Shelter Analysis to determine whether the disclosed transaction is actually part of a larger abusive scheme without investigating the roles of additional parties. If it turns out that the taxpayer filed the disclosure statement merely out of caution, and not because of participating in a transaction solely designed to avoid Federal income tax, the taxpayer will have consumed hours of IRS attention that could have been dedicated to investigating taxpayers involved in much more questionable tax planning.

Further, the sheer volume of unnecessary disclosure statements that IRS may receive in response to particular requests may impair its ability to review all of these requests fully, if at all. For instance, in its annual report for 2006, the Internal Revenue Service Advisory Council (IRSAC) discussed its review of IRS procedures for analyzing reportable transaction disclosure statements.<sup>130</sup> The IRSAC report explained:

Based on meetings with [Large and Mid Size Business Division] officials, IRSAC members did not initially get to a comfort level that anything had been done with these forms by [the Office of Tax Shelter Analysis] on a timely basis. . . . [W]e were told that these filings were stacked in an office in Ogden waiting to be processed.<sup>131</sup>

Over the course of its review, IRSAC learned that “taxpayers who have made disclosures have either had no followup contacts with IRS or, alternatively, have simply received a ‘tax shelter identification number’ to include on their returns.”<sup>132</sup> Because excessive reporting of ordinary transactions may cause disclosure statements that describe abusive tax planning to become lost in the shuffle, IRSAC concluded that “IRS should implement measures to reduce overdisclosure of transactions that are not reportable transactions.”<sup>133</sup>

***Slowed Statutory Solutions.*** When the mandatory disclosure regime works well, it enables IRS to learn about new types of abusive tax planning and, assuming taxpayers properly disclose, the scale of participation by taxpayers. IRS officials may then warn Congress that specific statutory changes are needed to halt the use of particular abusive tax strategies.<sup>134</sup> The Government has acknowledged that a purpose of the mandatory disclosure regime is to “allow IRS, the Treasury Department, and, to the extent necessary, the Congress sufficient time to react to and stop the spread of the latest fad in the corporate tax shelter genre.”<sup>135</sup> For example, shortly after IRS discovered that many taxpayers were engaging in the contingent liability transaction that Blue Chip Co. used to avoid capital gain taxation, Congress passed a specific provision, section 358(h) of the Internal Revenue Code, which prevented



taxpayers like Blue Chip Co. from claiming large capital losses using the strategy in the future.<sup>136</sup>

Because overdisclosure distracts IRS, it slows its ability to alert Congress that a targeted statutory solution to “the latest fad” in abusive tax planning is needed.<sup>137</sup> As a result, the “Wall Street rule” may take hold, meaning taxpayers believe that IRS or Congress will not challenge a particular tax strategy if there is “long-standing and generally accepted understanding of this expected tax treatment.”<sup>138</sup> Even though the Wall Street rule has no legal basis, when so many taxpayers have adopted a particular tax position, Congress may wait to change the law until after it has held hearings or IRS and taxpayers have butted heads in court. Without the effects of overdisclosure, however, IRS may be able to warn Congress of a particular defect in the law before its exploitation by taxpayers has spread. At that early stage, Congress may be more amenable to enacting a technical correction to the law.

**Wasteful Behavior.** Last, overdisclosure represents wasteful behavior. When taxpayers and advisors expend time and resources describing the details of tax strategies that are not abusive but that, technically, may be reportable transactions, they do this in place of activities that could at least provide some social benefit.<sup>139</sup> Just as “[n]o new medicines are found, computer chips designed, or homeless housed” as a result of abusive tax planning, the same can be said of overdisclosure.<sup>140</sup> The efforts of taxpayers and advisors could be justified if the Government were to collect additional revenue as a result of the information they provide. But in the case of overdisclosure, where the tax strategies disclosed are consistent with both the letter and spirit of the underlying tax law, the Government fails to collect additional revenue.

## Why Overdisclosure? Investigating the Sources

The discussion so far has provided concrete evidence that the threat of overdisclosure is real, but it has not addressed the fundamental question of why it occurs. Without understanding the sources of overdisclosure, it would be difficult to consider and implement effective measures for preventing it.

The overdisclosure response does not stem solely from any single feature of the tax law or tax administration. Rather, it is the result of a number of factors, the relevance of which may vary depending on the type of taxpayer or advisor who is subject to the mandatory disclosure regime. As this part argues, current law contains numerous overdisclosure incentives for conservative types inclined to cooperate with IRS, and for aggressive types who want to obstruct its search for tax shelter clues.

## Different Attitudes Toward Tax Compliance

Different taxpayers and advisors have different attitudes toward tax compliance.<sup>141</sup>

Some may act cautiously, attempting to comply with the tax law to the fullest extent possible. Cautious taxpayers are unlikely to claim risky tax positions on their tax returns, and certainly would not knowingly violate the tax law. Similarly, there are tax advisors who fit this model. Conservative advisors avoid recycling standard opinions that do not fully consider the factual elements of particular clients' transactions. Rather, as Peter Canellos has written, these types of advisors view tax law as a practice area that is "interactive, interpersonal, and calls for negotiating as well as analytical skills."<sup>142</sup>

Other types of taxpayers and advisors may view IRS as an adversary and tax compliance as a game in which the objective is to pay the lowest amount of tax possible. Aggressive taxpayers hope to win the audit lottery by escaping IRS detection, a gamble that has incredibly favorable odds for the taxpayer.<sup>143</sup> These types of taxpayers turn to advisors who are known to apply hyperliteral readings of the Internal Revenue Code without regard to Congress's intent or conflicting case law. Canellos has distinguished tax shelter lawyers from the rest of the tax bar by describing them as of "a different breed, by experience, temperament, reputation, and calling."<sup>144</sup> What Canellos and others are saying is that certain taxpayers and advisors have a tendency to push the envelope by playing within the rules, but only by reading those rules as literally as possible.<sup>145</sup>

The identity of a particular taxpayer or advisor as a conservative or aggressive type may play a crucial part in the explanation of why overdisclosure occurs.

Conservative taxpayers and advisors who are unlikely to claim risky tax positions also adopt a cautious reading of the tax shelter reporting rules. Indeed, these taxpayers and advisors may be so cautious that they would rather provide information about their transactions, even when they doubt such disclosure is required, rather than risk the consequences under current law that apply to acts of under- and nondisclosure. While these types of taxpayers and advisors provide unhelpful information to IRS, they at least provide it in the spirit of compliance with the law.

Aggressive taxpayers and advisors, on the other hand, often attempt to claim tax positions that are inconsistent with the purposes of the statutes on which they rely, but that do not raise red audit flags for IRS. These taxpayers and advisors are prototypical rational actors—for them, as the risk

of an IRS audit increases, the expected benefit of an abusive tax position decreases. Unlike conservative taxpayers and advisors, aggressive types may overdisclose nonabusive transactions and irrelevant information to IRS because they expect to benefit from this behavior.

### **Why Conservative Types Overdisclose**

When deciding whether they should report their ordinary, nonabusive transactions to IRS, conservative taxpayers and advisors may lean in the direction of disclosure for three primary reasons: the tax shelter reporting rules are extremely broad, IRS often fails to offer timely explanatory guidance, and the penalties for failure to disclose are high.

#### **Broad Disclosure Requests**

The mandatory disclosure regime contains broad requests for information about transactions that may bear typical tax shelter traits. As the following examples illustrate, this breadth may cause conservative taxpayers and advisors to provide IRS with information that does not aid its search for abusive tax shelters.

***Substantial Similarity.*** Even though the tax shelter reporting rules require disclosure of a transaction when it is “substantially similar” to a listed transaction or a transaction of interest, the threshold for disclosure is much lower than the name of this concept suggests.<sup>146</sup> Under the regulations, taxpayers and advisors must disclose any transaction that is “expected to obtain the same or similar types of tax consequences and that is either factually similar or based on the same or similar tax strategy.”<sup>147</sup> This definition thus sets the threshold for disclosure at whether the transactions or underlying tax strategies are merely “similar.” As one practitioner has commented, “Substantially similar as defined in the regulations has nothing to do with substantially similar.”<sup>148</sup>

The tax shelter reporting rules do not explicitly provide for any threshold of reasonableness in defining substantial similarity.<sup>149</sup> In the tax shelter disclosure context, the standard requires taxpayers and advisors to disclose participation in transactions that are merely “similar” to listed transactions or transactions of interest.<sup>150</sup> The definition in the regulations makes no reference to the perception of a reasonable person at all. Indeed, they require the term to be “broadly construed in favor of disclosure,” effectively eliminating a minimal threshold of reasonableness for taxpayers who choose to apply this instruction literally.<sup>151</sup>

When conservative taxpayers and advisors have provided IRS with disclosure statements regarding nonabusive transactions in the past, their behavior may have been the result of broad application of the substantial similarity requirement. The New York State Bar Association Tax Section, for example, reported that, in response to IRS's designation of the intermediary corporation tax shelter as a listed transaction, many taxpayers disclosed their participation in routine sales of stock to tax-exempt entities because they were "concerned that their transactions might be viewed as "substantially similar" to the one described in [the Notice]."<sup>152</sup>

In spite of the threat of overdisclosure, the Government has consistently endorsed an expansive interpretation of "substantial similarity." The regulations defining the term explicitly require that "the term substantially similar must be broadly construed in favor of disclosure."<sup>153</sup> Responding to complaints that the substantial similarity requirement creates uncertainty regarding whether certain nonabusive transactions must be disclosed, an IRS official commented in 2006 that, as a result of the substantial similarity requirement, "if I were in your shoes and I wasn't sure, I would disclose . . . ."<sup>154</sup>

**No Abuse Necessary.** Current law also encourages conservative types to overdisclose by requiring disclosure of specified activities, whether or not they actually are abusive. A core objective of the mandatory disclosure regime is to highlight for IRS agents the tax positions that may be the result of abusive tax planning.<sup>155</sup> The tax shelter reporting rules do not absolve taxpayers from the disclosure obligation simply because a particular transaction does not result in understatement of tax liability, or is supported by a valid nontax-related business purpose.<sup>156</sup>

For example, if a taxpayer participates in a transaction that is identical to the contingent liability tax shelter—a listed transaction—the taxpayer is obligated to disclose participation even though believing that the transaction served a real business purpose unrelated to tax avoidance.<sup>157,158</sup> In fact, in the notice designating this particular tax strategy as a listed transaction, IRS stated its view that "any business purposes taxpayers may assert for certain aspects of these transactions are far outweighed by the purpose to generate deductible losses for Federal income tax purposes."<sup>159</sup> IRS, thus, wants to see the details of the reportable transaction whether or not a taxpayer or advisor believes it constitutes abuse.

The drawback to this strong stance is that cautious, conservative taxpayers and advisors may feel an obligation to disclose any transactions that arguably fall within one of the required disclosure categories, even if they clearly lack abuse potential. After all, if the transactions really are not abu-

sive, disclosure poses little risk to the taxpayer. Managers of hedge funds may have reported so many plain vanilla total return equity swaps because the managers broadly interpreted IRS's designation of the abusive notional principal contract tax shelter as a listed transaction.<sup>160</sup> As commentators reported, there was little downside to disclosing these types of transactions, given their consistency with the tax law.<sup>161</sup>

**Retroactivity.** Conservative taxpayers may also be motivated to overdisclose because the tax shelter reporting rules may apply to taxpayers' transactions on a retroactive basis.

If IRS designates a particular strategy as a listed transaction after taxpayers have used it, taxpayers are nonetheless required to disclose participation in the strategy retroactively (as long as the applicable statute of limitations has not expired).<sup>162</sup> Likewise, taxpayers must report transactions of interest retroactively.<sup>163</sup>

Without a retroactivity provision, the mandatory disclosure regime would be so weak as to be nearly useless. As has been discussed, the most popular tax shelters are those that are not explicitly prohibited by law or even subject to disclosure requirements.<sup>164</sup> When it comes to abusive tax shelters, IRS is constantly playing a cat-and-mouse game with taxpayers and tax shelter promoters.<sup>165</sup> Retroactive disclosure requirements, consequently, are necessary for IRS to receive disclosure statements regarding these transactions from the taxpayers and advisors who first participated in them.

Retroactive reporting rules, however, may cause conservative taxpayers to overdisclose. An IRS announcement requiring taxpayers to disclose a listed transaction may cause taxpayers to evaluate several years of transaction history to determine whether they have engaged in the transaction or one substantially similar to it. Taxpayers have commented that the retroactivity feature results in recordkeeping burdens, especially in the corporate context where tax directors may retire or resign before IRS designates a particular transaction as subject to mandatory disclosure.<sup>166</sup> Further, taxpayers must disclose participation in any such transaction within 90 calendar days after it becomes a listed transaction or transaction of interest.<sup>167</sup> Conservative taxpayers, consequently, may disclose on a protective basis at the time they enter into transactions rather than wait for an IRS announcement requiring disclosure.

### **Slow Explanatory Guidance**

Conservative taxpayers and advisors may also err on the side of overdisclosure because IRS is often slow to explain how the tax shelter reporting

rules should be applied to transactions that, to taxpayers and advisors, appear nonabusive.

When IRS issues angel lists, it announces that certain clearly nonabusive transactions and tax strategies are exempt from the mandatory disclosure regime. IRS can issue an angel list in the form of a notice that supersedes a prior notice, or as a standalone revenue procedure. These lists are designed to alleviate uncertainty regarding disclosure and to prevent IRS from receiving disclosures of obviously nonabusive tax strategies.

While IRS has issued angel lists for certain categories of reportable transactions, it has been slow or unwilling to clarify what types of transactions are not substantially similar to a listed transaction or transaction of interest.<sup>168</sup> IRS officials have often resisted public calls for such guidance, citing a concern that taxpayers and advisors may exploit it to avoid disclosing abusive transactions.<sup>169</sup>

In the rare cases in which IRS has issued angel lists clarifying a notice that designated a particular tax strategy as a listed transaction, it has done so years after the original notice. For example, after IRS first required taxpayers to disclose participation in the notional principal contract tax shelter in 2002, taxpayers and advisors quickly questioned whether IRS meant to capture plain vanilla total return equity swap transactions with its original notice.<sup>170</sup> Despite this concern, IRS did not issue a corrective notice exempting such nonabusive transactions from disclosure until nearly 4 years had elapsed.<sup>171</sup>

As a result of IRS's reluctance to issue angel lists clarifying the scope of its disclosure requests, conservative taxpayers and advisors frequently disclose nonabusive transactions. In the 4 years between IRS's original notice regarding notional principal contract tax shelters and its corrective guidance, taxpayers and advisors filed "tens of thousands of unnecessary disclosures" regarding total return equity swaps and other nonabusive transactions.<sup>172</sup>

Further, because IRS often allows so much time to pass before issuing corrective guidance, some conservative taxpayers and advisors may adopt an overly cautious stance toward the mandatory disclosure regime. These taxpayers and advisors may not change their disclosure behavior even after IRS includes certain nonabusive transactions on an angel list.

As an illustration, after IRS issued Notice 2008-20 in 2008, which redefined an intermediary corporation tax shelter by using four objective factors rather than a more general description, some practitioners advised their clients to continue, if not increase, disclosure of nonabusive transactions.<sup>173,174</sup> They advised that, as a result of the corrective guidance, there are now "virtually 'no excuses' [for failing to file a disclosure statement]

for stock transactions that happen to satisfy the [four] basic requirements of an intermediary transaction tax shelter.”<sup>175</sup> The New York State Bar Association Tax Section echoed this sentiment, writing that “[i]n the face of this uncertainty, it has been suggested that a taxpayer should file a protective disclosure [regarding nonabusive transactions] or request a ruling . . . .”<sup>176</sup> An IRS official has acknowledged concern that taxpayers and advisors may respond to the new notice with “excessive reporting of transactions based on the uncertainty of the intentions of other parties to them.”<sup>177</sup>

### **Fear of Nondisclosure Penalties**

The current penalties for failing to comply with the mandatory disclosure regime are severe. As the following discussion explains, these penalties, when combined with broad reporting rules and limited explanatory guidance, have made overdisclosure a sensible strategy for conservative taxpayers and advisors.

**Monetary Penalties.** In 2004, in response to the growing mass-marketed tax shelter industry, Congress enacted new tax penalties for taxpayers and advisors who fail to file required disclosure statements.<sup>178</sup>

For taxpayers, the penalty for failing to report a listed transaction is \$100,000 in the case of individuals, and \$200,000 in the case of corporations, for each act of nondisclosure.<sup>179,180</sup> These penalties are reduced to \$10,000 for individuals and \$50,000 for corporations in the case of nondisclosure of any other type of reportable transaction.<sup>181,182</sup> The monetary penalties effectively apply on a strict liability basis and “without regard to whether the transaction ultimately results in an understatement of tax.”<sup>183</sup> The ability of IRS to waive these penalties is also subject to recordkeeping requirements and potential oversight by Congress.<sup>184</sup>

Further, for taxpayers who fail to disclose any type of reportable transaction, a significant purpose of which is tax avoidance, the penalties that may apply to the understatement of tax increase from 20 percent to 30 percent.<sup>185</sup>

The tax law also imposes high monetary penalties on advisors who fail to comply with the mandatory disclosure regime. If an advisor does not file a disclosure statement regarding a listed transaction, the advisor is subject to a monetary penalty of \$200,000 or 50 percent of the gross income earned for providing advice regarding the transaction, whichever is greater.<sup>186</sup> In addition, if a material advisor fails to provide a required tax shelter investor list to IRS within 20 days of IRS’s request, the advisor is fined \$10,000 per day until IRS receives the list.<sup>187</sup>



Conservative taxpayers and advisors may feel obligated to disclose nonabusive transactions as a result of the monetary penalties that apply to acts of nondisclosure. A corporate tax director may be concerned that a routine business restructuring involving liabilities and corporate subsidiaries could have a remote chance of being considered substantially similar to a listed transaction.<sup>188</sup> Filing a disclosure statement with IRS guarantees that the corporation is protected against the high penalties.<sup>189</sup>

Likewise, conservative tax advisors may file reportable transaction disclosure statements in similar situations, especially if the client has done so. And the threat of a never-ending \$10,000-a-day penalty for tax advisors who fail to provide complete tax shelter investor lists to IRS on request may also motivate these advisors to maintain more records than necessary.<sup>190</sup>

**Shaming Penalties.** Certain taxpayers may also overdisclose out of fear of reputational harm that may result from failing to comply with the mandatory disclosure regime.

The Government is generally prohibited from publicly disclosing information about particular tax returns, including any penalties paid.<sup>191</sup> However, Congress enacted legislation in 2004 that requires large corporate taxpayers to announce any nondisclosure penalties they have paid to IRS in their public filings with the Securities and Exchange Commission.<sup>192</sup> The statute is consistent with typical Government shaming mechanisms that publicly highlight an offender's bad act to punish the offender and deter others.<sup>193</sup>

A shaming sanction for failure to disclose information to IRS may cause some conservative tax directors to fear reputational harm for their corporations or for themselves. As opposed to publicity that a corporation's managers have claimed aggressive tax positions that are not explicitly prohibited, public reports that a corporation's managers have simply failed to provide requested information to IRS could send a negative signal to members of the corporation community.<sup>194</sup> Corporate managers may worry that investors and potential business partners could interpret news of a nondisclosure penalty as reflecting the level of the corporation managers' openness and honesty.

In response to these sanctions, tax directors, lawyers, and accountants have engaged in numerous public discussions on procedures that corporations should adopt to ensure they comply with IRS's disclosure requirements.<sup>195</sup> The most obvious response, they often conclude, is that, when in doubt, overdisclosure minimizes reputational risk for their corporations.



### Why Aggressive Types Overdisclose

While conservative types may overdisclose information to IRS out of fear of the consequences of nondisclosure, aggressive types may engage in this behavior for very different reasons. Aggressive taxpayers, the type who claim risky tax positions exploiting ambiguities in the tax law, and their aggressive advisors may embrace overdisclosure as an affirmative strategy for avoiding detection by IRS. Just like typical tax shelter transactions, intentional acts of overdisclosure are “perfectly legal.”<sup>196</sup> In addition, public statements from IRS officials regarding the difficulty that overdisclosure has caused IRS signals to aggressive types that it is likely an effective detection avoidance strategy.

### Detection Avoidance

Overdisclosure may enable aggressive taxpayers and advisors to conceal their questionable tax strategies without risking high nondisclosure penalties.

In terms of substantive tax planning, a key objective for aggressive taxpayers is to find ways to avoid paying taxes without raising red flags for IRS auditors.

As Alex Raskolnikov has described, an aggressive taxpayer often chooses a tax avoidance strategy that does not cause items on his or her tax return to vary dramatically from those on his or her prior tax returns or from those on the tax returns of other taxpayers who fit his or her profile.<sup>197</sup> Applying Raskolnikov’s explanation, a suburban dentist will probably not attempt to claim a \$100 tax loss attributable to almond farming, a deduction he or she has never claimed before and attributable to an activity in which he or she has little or no actual involvement.<sup>198</sup> Rather, the dentist is more likely to claim \$100 of phony charitable deductions if he or she also claims \$1,000 of legitimate charitable deductions on his or her tax return and has done so for years.<sup>199</sup> The latter strategy would probably seem more attractive to the dentist because he or she believes that the chances of IRS detecting the phony \$100 charitable deduction, which is mixed in with the legitimate \$1,000 of charitable deductions, are much lower than the chances of IRS detecting the \$100 of phony almond farm deductions.<sup>200</sup>

Overdisclosure enables aggressive taxpayers to avoid detection by IRS using different means. Rather than burying a small illegitimate deduction on the same line as a larger legitimate deduction on the tax return, overdisclosure allows an aggressive taxpayer to provide IRS with pure information about nonabusive transactions. When the aggressive taxpayer simultaneously files a disclosure statement regarding a truly abusive tax strategy, IRS

may be so distracted by the filings regarding nonabusive transactions that it will not question the strategy.

As a result, an aggressive taxpayer may conclude that, with the overdisclosure technique, the overall expected utility of engaging in the abusive transaction will not be any lower than the expected utility would be in the absence of disclosure.<sup>201</sup> And overdisclosure will allow the aggressive taxpayer to escape the high monetary and nonmonetary penalties for failure to disclose.

Imagine that an aggressive tax director at a large corporation, acting on advice purchased from an accountant, implements a highly complex tax shelter strategy unknown to IRS that allows the corporation to avoid millions in tax liability. The accountant promises the tax director to refund 50 percent of his or her fee if IRS successfully challenges the tax treatment. The refund feature subjects this tax shelter to “contractual protection,” so that the tax director is required to disclose the corporation’s use of it to IRS.<sup>202</sup>

The tax director can avoid the nondisclosure penalties by filing a reportable transaction statement regarding this tax shelter strategy with IRS. But, at the same time, the tax director can also file unnecessary reportable transaction statements regarding any nonabusive transactions for which the corporation was entitled to a refund of fees by a tax advisor. The technical justification for the aggressive tax director’s affirmative overdisclosure is that the tax shelter reporting rules cast a wide net when describing transactions with contractual protection.<sup>203</sup> If the rules are applied broadly, as one practitioner has commented, “[p]ractically any transaction has the potential of a refund of fees or a legal claim against the professionals if the tax work is found to be below prevailing standards.”<sup>204</sup>

There are several reasons why the aggressive tax director in this example may believe overdisclosure will enable him or her to report the abusive tax shelter without raising a red flag for IRS.

The tax director may believe that, by providing so much information about real transactions, there will only be a small chance that IRS will focus on the one disclosure statement regarding the abusive tax strategy. IRS may instead seek additional information about one of the nonabusive transactions. Just as the leprechaun hides his gold beneath a ragwort plant adorned with a red ribbon among hundreds of other ragwort plants adorned with red ribbons, the tax director may use the overdisclosure technique to obscure truly questionable transactions from view.<sup>205</sup>

As has been discussed, overdisclosure may become the norm in response to a particular reportable transaction requirement because many conservative tax directors apply an overly cautious reading of the tax shelter reporting rules.<sup>206</sup> An aggressive tax director can essentially piggyback

on the behavior of conservative tax directors by engaging in overdisclosure as well. By overdisclosing in order to hide an abusive tax shelter, the aggressive tax director's behavior may resemble that of conservative types, reducing the probability that IRS will focus on the aggressive tax director's filings.

The aggressive tax director may also believe that overdisclosure is an effective detection avoidance strategy because of the statute of limitations. If a taxpayer fails to disclose a listed transaction, the statute of limitations remains open.<sup>207</sup> But, if the aggressive tax director files a disclosure statement regarding the abusive tax strategy, along with many disclosures of non-abusive transactions, the statute of limitations clock on the abusive strategy begins to tick. It may expire within as little time as 3 years from the filing of the corporation's tax return.<sup>208</sup> Once the statute of limitations clock stops, absent fraud or another special exception, IRS will not be able to challenge tax benefits the corporation has claimed using the abusive tax shelter.<sup>209</sup>

Aggressive advisors may also pursue a strategy of intentional overdisclosure, but for slightly different reasons than aggressive taxpayers. The aggressive advisor, such as the accountant in the example above, wants to sell his or her tax shelter product to as many taxpayers as possible before IRS detects the strategy and designates it as a listed transaction.<sup>210</sup> Again, such notices chill the market for that particular abusive tax shelter. By overdisclosing, the advisor avoids high penalties for failure to disclose, and may also reduce the chance of IRS detecting the abusive tax strategy, enabling him or her to continue selling it.

### It's "Perfectly Legal"

In light of the potential benefits of overdisclosure for aggressive taxpayers and advisors, these types may be especially drawn to the "it's perfectly legal" response to the mandatory disclosure regime because the law neither explicitly nor implicitly prohibits it.

**No Disclosure Limits.** The law contains very few limits on disclosure that would prevent an aggressive taxpayer or advisor from intentionally reporting participation in nonabusive transactions.

Taxpayers and advisors can file as many reportable transaction disclosure statements as they want to file.<sup>211</sup> Aggressive types may take advantage of the protective disclosure filing mechanism, which allows them to file disclosure statements whenever they could plausibly claim to be unsure whether a particular transaction must be disclosed.<sup>212</sup> Further, the regulations now require protective disclosure statements to include the same information that they

would include on a nonprotective disclosure statement.<sup>213</sup> Aggressive taxpayers and advisors can exploit this procedure, by filing detailed disclosure statements that describe nonabusive transactions with a tenuous basis for disclosure.

Likewise, there is no limit on the number of words or pages a taxpayer or advisor may use to describe a reportable transaction when filing a disclosure statement with IRS. The only limit on the description of the transaction is that it must explain the transaction “in sufficient detail for IRS to be able to understand the tax structure of the reportable transaction.”<sup>214</sup> Aggressive types can interpret the term “sufficient detail” as requiring taxpayers and advisors to provide IRS with more rather than less information about a transaction, especially when considering other regulations that instruct taxpayers and advisors to disclose excess information when in doubt.

While there are more restrictions on the disclosure practice of advisors than taxpayers, they do not limit advisors’ ability to pursue many forms of overdisclosure. For example, advisors are no longer permitted to deliver an unorganized box of documents to IRS in response to a tax shelter investor request, and, under current law, an index and a particular IRS form must accompany the documents.<sup>215</sup> Yet despite these rules, advisors may still intentionally disclose information regarding taxpayers and transactions that do not reveal abuse as long as they do so using the IRS form and in an organized fashion.

**Lack of Authority.** The tax law provides that every taxpayer is required to “carefully prepare [a] return and set forth fully and clearly the information required to be included therein.”<sup>216</sup> In spite of this provision, an aggressive taxpayer may still file as many disclosure statements regarding nonabusive transactions as possible, so long as there is some basis for considering these transactions to be subject to the reportable transaction rules. The regulation’s statement of the taxpayer’s filing obligation may not change the incentive for an aggressive taxpayer to include many unnecessary details in a description of a reportable transaction as long as the taxpayer presents them “clearly.”<sup>217</sup>

It is also unlikely that excessive reporting of nonabusive transactions and information irrelevant to tax shelter detection would constitute fraud for tax purposes. As Congress first defined the term in 1934, “fraud” for tax purposes means “fraud with intent to evade tax.”<sup>218</sup> Fraud usually involves explicit lying to IRS, such as where taxpayers claim personal exemptions for children who do not exist or taxable losses for business expenses never incurred.<sup>219</sup> When aggressive types file unnecessary disclosure statements, on the other hand, they describe transactions and events that have actually occurred. As the author of the leading tax procedure treatise commented on the distinction between fraud and other types of behavior,

[T]he deception and misleading conduct characteristic of fraud distinguish fraud from tax avoidance devices. Both may result in underpayments in tax, but tax avoidance is characterized by disclosure of transactions that are, in fact, what they appear to be, for example, a sale that is not a sham as a matter of fact, or a sale that takes place on the date stated.<sup>220</sup>

Further, it is unlikely that IRS could prove the necessary intent standard by clear and convincing evidence. The tax shelter reporting rules, after all, state that key disclosure requirements “must be broadly construed in favor of disclosure.”<sup>221</sup>

**No Penalties.** Finally, aggressive taxpayers may excessively report nonabusive transactions because the law contains no explicit monetary penalties for overdisclosure. As the discussion above indicates, since 2004, the law has contained extensive monetary and nonmonetary penalties for taxpayers who fail to disclose their participation in reportable transactions.<sup>222</sup> However, the tax law fails to provide aggressive types with an explicit disincentive for adopting an affirmative strategy of overdisclosure.

### Awareness

Last, aggressive types may overdisclose as a result of IRS’s own publicity of the difficulties overdisclosure has caused the Service.

Government officials have frequently discussed the overdisclosure problem in presentations at meetings of corporate tax directors, bar associations, and other public events, pleading publicly with those in attendance to reduce their overdisclosure of ordinary business transactions.<sup>223</sup> For example, at a 2004 meeting of the Tax Executives Institute, an IRS official implored the attendees, “We ask you not to contort the regs regarding disclosure . . . . We don’t think it is necessary to contort the regs for overdisclosure of routine issues.”<sup>224</sup> Such public statements alert aggressive taxpayers and advisors that overdisclosure may be an effective technique for avoiding IRS detection of questionable tax positions, and that IRS has little means to prevent the response other than public pleas.

In addition, when IRS releases an angel list or corrective guidance to clarify the tax shelter reporting rules, it reveals publicly the specific activities about which IRS does not want to receive information. For aggressive types, this guidance may serve as a playbook of the transactions they could purposely disclose in order to distract IRS. For example, after IRS announced in 2006 that total return equity swaps were no longer subject to mandatory disclosure requirements, it subsequently reported on its Web site

and in a public notice that “[t]he Service has continued to receive unnecessary disclosures from taxpayers meeting the exceptions [described in IRS’s notice].”<sup>225</sup> Though we may not know exactly what motivated the taxpayers and advisors who filed these unnecessary disclosures, some may have been filed by aggressive types as a strategy for hiding abusive tax planning.

## Can Overdisclosure Be Overcome? Reform Possibilities

Despite the predictable nature of overdisclosure and the threats it poses to tax administration, neither the substantive tax law nor IRS has adopted an effective strategy for preventing it.

Several commentators have concluded that overdisclosure is a necessary evil resulting from rules that impose high penalties for failing to disclose information or, alternatively, increase the possibility of IRS challenging their tax positions if they do disclose.<sup>226</sup> According to this view, overdisclosure is a problem the tax law cannot address preemptively and that IRS should deal with, as needed, reactively.<sup>227</sup>

Yet IRS’s past attempts to reduce overdisclosure have been inadequate. By refusing to implement an overdisclosure policy that taxpayers and advisors can apply on an *ex ante* basis, IRS has encouraged them to overdisclose by applying the tax shelter reporting rules broadly.<sup>228</sup> When IRS has eventually issued corrective guidance, often years after the original rules evoked an overdisclosure response, the guidance may not have had its intended effect.<sup>229</sup> And public pleas from IRS officials that taxpayers and advisors not “contort the regs for overdisclosure of routine issues” appear to have often fallen on deaf ears.<sup>230</sup>

Further, the most obvious way to alleviate the overdisclosure response—repeal of the high nondisclosure penalties—would likely cause taxpayers and advisors to revert to the general disclosure behavior they exhibited before 2004—minimal to no disclosure.<sup>231</sup>

Without the threat of nondisclosure penalties, conservative types would limit their disclosure to tax positions they believe may actually result in an IRS challenge on substantive legal grounds. The reason for this change in behavior is that, without nondisclosure penalties, the only consequence of failing to disclose a transaction would be the loss of a defense to accuracy penalties. If IRS were to challenge a nondisclosed tax position and apply an accuracy penalty, the taxpayer would not be able to use disclosure as a way to establish a reasonable cause or good faith defense.<sup>232</sup> Because conservative

taxpayers and advisors do not participate in tax planning that they consider likely to generate a challenge from IRS, they would probably file very few, if any, reportable transaction disclosure statements.

For aggressive taxpayers, the repeal of the nondisclosure penalties would eliminate any incentive to file reportable transaction disclosure statements with IRS. The primary reason why aggressive taxpayers participate in the mandatory disclosure regime is, as I have argued, to escape the high nondisclosure penalties while continuing to hide their abusive tax shelters.<sup>233</sup> If the nondisclosure penalties were repealed, an aggressive type would have no motivation to disclose; after all, the best strategy for avoiding IRS detection of an abusive tax shelter is to disclose nothing. And, without the overdisclosure culture that conservative types have created due to their extreme caution, an aggressive type would view disclosure as an obvious way to attract scrutiny from IRS.<sup>234</sup>

Rather than advocate a single “silver bullet” solution to a multilayered problem, I offer three proposals that could be implemented together as an overall strategy to reduce overdisclosure: (a) use anticipatory angel lists when IRS designates new listed transactions, (b) enact targeted monetary penalties for certain acts of overdisclosure, and (c) require business taxpayers to file copies of certain nontax documentation describing the disclosed transactions that taxpayers prepared for actors other than IRS.

### **Anticipatory Angel Lists**

A significant contributing factor to the overdisclosure response is the Government’s reluctance to inform taxpayers and advisors explicitly that they should not disclose participation in certain nonabusive activities, especially in cases involving listed transactions.<sup>235</sup> When IRS designates a tax strategy as a listed transaction, it generally uses a revenue ruling or notice to focus attention on the details of the tax strategy at issue.<sup>236</sup> To date, IRS has designated thirty-four separate tax strategies as listed transactions and maintains the original designation announcements on its Web site.<sup>237</sup> None of these announcements contains specific instructions from IRS regarding tax strategies that are explicitly exempted from the listed transaction designation.<sup>238</sup>

In contrast to its current approach, IRS could preempt overdisclosure by incorporating angel lists into its listed transaction announcements.

When it designates a tax strategy as a listed transaction, IRS could also supply taxpayers with a list of similar transactions that are, in IRS’s view, nonabusive. The Government has already commented that it may use the



transaction-of-interest category as a way to solicit feedback from taxpayers and advisors before announcing a listed transaction.<sup>239</sup> This approach could supply information not only about the abusive tax strategy at issue, but also about nonabusive transactions that a listed transaction notice could unintentionally cover.

Under this proposal, if IRS eventually designates the tax strategy as a listed transaction, it would include in its announcement an angel list of clearly nonabusive transactions, exempting them from the mandatory disclosure requirements. Each announcement of a new listed transaction could include a section entitled “Transactions Not Substantially Similar” that describes these nonabusive transactions. Because IRS would include these angel lists in the designation of a listed strategy initially, rather than years later through corrective guidance, the angel lists can be characterized as anticipatory.

### **Rationale**

Anticipatory angel lists could enhance IRS’s tax shelter detection efforts by adding more precision to disclosure requests, preempting the uncertainty that typically follows the designation of a new listed transaction, and encouraging cooperation among conservative taxpayers and advisors and IRS.

**Focused Disclosure Requests.** Because anticipatory angel lists would describe specific, clearly nonabusive transactions that need not be disclosed, they would be unlikely to lead to underdisclosure or nondisclosure in the same manner as other possible exceptions.

In the past, when IRS publicly described the details of a new listed transaction, it avoided stating that the transaction “fails to serve a significant business purpose other than tax avoidance.”<sup>240</sup> The probable rationale for this and similar omissions is that, if IRS were to include them, the scope of the listed transaction designation could effectively be narrowed. Clever taxpayers and advisors, seeking to avoid disclosure, could manufacture a nominal business purpose or find ways to disclaim a tax avoidance plan.

By contrast, anticipatory angel lists could focus IRS’s listed transaction designation by identifying nonabusive transactions that would not be subject to mandatory disclosure. IRS has issued similar angel lists for other categories of reportable transactions, such as loss transactions, in anticipation of excessive reporting.<sup>241</sup> When IRS announced that taxpayers must disclose transactions that generate significant tax losses, for example, IRS also announced that, if a taxpayer claims a tax-deductible loss due to “fire, storm, shipwreck, or other casualty,” it is not required to file a reportable transaction disclosure statement.<sup>242</sup> The reason for the disclosure exception here is clear: IRS con-



siders it unlikely that a taxpayer would purposely incorporate a costly fire or sinking ship into a transaction simply to avoid Federal income tax. IRS officials have not reported a decrease in the disclosure of potentially abusive tax strategies as a result of this exemption.<sup>243</sup>

Surprisingly, IRS has failed to provide comparable anticipatory angel lists when designating listed transactions.<sup>244</sup> This is particularly odd, given that the listed transaction category, unlike loss transactions and confidential transactions, is subject to the extremely broad “substantial similarity” standard.<sup>245</sup> As a result, anticipatory angel lists would significantly shift IRS’s approach to designating new listed transactions. If conservative taxpayers and advisors were to adhere to the new anticipatory angel lists, IRS could increase the speed with which it detects real abuse.

**Reduced Corrective Guidance.** Anticipatory angel lists may also lessen the amount of corrective guidance IRS issues to clarify its original designations of listed transactions. A frequent response to new listed transactions is that taxpayers and advisors immediately disclose nonabusive transactions they deem substantially similar to those described in the announcements.<sup>246</sup> IRS has periodically issued corrective guidance exempting nonabusive transactions from mandatory disclosure, though often years after its original announcement (and in some cases not at all).<sup>247</sup> Sometimes, the corrective guidance has increased uncertainty among taxpayers and advisors and failed to dissuade them from disclosing the nonabusive activities at issue.<sup>248</sup> By including anticipatory angel lists in initial designations of listed transactions, IRS may avoid the need to issue such corrective guidance in the future. As a result, IRS could prevent years from elapsing after its initial designation of a listed transaction during which taxpayer and advisor confusion over what must be disclosed festers.

**Cooperative Approach.** A final benefit of anticipatory angel lists is that they may reduce resistance to the Government’s new disclosure initiatives. Taxpayers and advisors who do not participate in abusive tax planning but nonetheless feel burdened by the tax shelter reporting rules often criticize IRS’s attempts to designate new listed transactions or otherwise expand the scope of the tax shelter reporting rules.<sup>249</sup> As a result, the Treasury and IRS often make concessions to appease this constituency, even though these concessions may allow some abusive tax planning to escape detection. By not only seeking comments before designating new listed transactions, but also acting on them through the use of anticipatory angel lists, IRS could mollify some hostility toward the mandatory disclosure regime.<sup>250</sup>

### Potential Objections

The principal potential objections to the use of anticipatory angel lists are that they may provide an incentive for taxpayers and advisors to avoid disclosure, unduly tie IRS's hands, and inform aggressive types of the transactions that disrupt IRS's detection efforts. Each of these potential objections is addressed below.

**Another Disclosure Loophole.** A likely objection to the proposed use of anticipatory angel lists is that it could reduce the willingness of taxpayers and advisors to err on the side of disclosure when considering whether questionable tax strategies are reportable transactions. Dean David Schizer, for instance, has criticized IRS's use of angel lists in the past, asserting that "taxpayers analogize to transactions on the list in order to conclude that they do not have to disclose transactions that, in light of the purposes of the regime, should be disclosed."<sup>251</sup>

There are two reasons why the disclosure loophole concern does not outweigh the benefits of the proposed use of anticipatory angel lists.

First, if a court or IRS determined that a taxpayer or advisor had abused the angel list to avoid disclosing participation in a questionable transaction, the taxpayer or advisor would be considered as having failed to disclose participation in a listed transaction. Thus, that taxpayer or advisor would be subject to the most severe penalties in the mandatory disclosure regime.<sup>252</sup> The angel lists that Schizer has criticized, by contrast, involved other categories of reportable transactions for which the penalty for nondisclosure is significantly lower.<sup>253</sup> Taxpayers and advisors, even aggressive ones, may thus not be willing to exploit anticipatory angel lists because of the much higher penalties that result from a determination of failure to disclose participation in a listed transaction.

Second, IRS would presumably craft the angel lists as narrowly as possible, describing included transactions with great specificity and only including clearly nonabusive transactions. Further, no "substantial similarity" standard should apply to the anticipatory angel lists. As a result, taxpayers and advisors would still have to disclose participation in any transactions not exactly like those on the anticipatory angel list. A taxpayer seeking to rely on an angel list as a basis for nondisclosure would, in other words, have to engage in a transaction exactly like one on the list.

**Tying IRS's Hands.** Another potential objection is that the proposal would effectively tie IRS's hands by forcing it to commit upfront to a list of exemptions. Opponents of anticipatory angel lists could argue that IRS does not necessarily know at the time when it designates a tax strategy as

a listed transaction what variations of that strategy are abusive or nonabusive.<sup>254</sup> It can reach such conclusions only after careful review. The status quo approach, they might argue, provides IRS with flexibility to determine what changes, if any, it should make to its original designation of a listed transaction.

But anticipatory angel lists would not prevent IRS from issuing corrective guidance in the future. If IRS designates a listed transaction and includes an anticipatory angel list, but subsequently determines that a transaction on the angel list really should be disclosed, or, alternatively, determines that a nonabusive transaction should have been included on the angel list, IRS can simply issue corrective guidance.<sup>255</sup> The proposal should limit the need for such corrective guidance, especially considering that IRS would have consulted with taxpayers and advisors regarding transactions for the angel list before designating a new listed transaction; but the proposal certainly does not prohibit such guidance.

***Playbook for Aggressive Types.*** An important potential objection to the proposed anticipatory angel lists is that they may help aggressive taxpayers and advisors who seek to overdisclose participation in nonabusive transactions as a detection avoidance strategy. Aggressive types may attempt to hide disclosure of an actual abusive tax strategy by also disclosing transactions very similar to those in IRS's corrective guidance and angel lists—disclosures that, as IRS itself has indicated, impede IRS's detection efforts.<sup>256</sup> IRS's use of anticipatory angel lists, which would describe potentially distracting nonabusive transactions earlier rather than later, thus might offer aggressive types a headstart on overdisclosure.<sup>257</sup>

In order to ameliorate this potentially serious problem while still reducing overdisclosure, the law should contain some disincentive for aggressive taxpayers to disclose participation in transactions that IRS has included on an anticipatory angel list. The next subpart describes how such a disincentive for aggressive types might be implemented.

## Targeted Overdisclosure Penalties

Overdisclosure is not just the product of uncertain features of the tax shelter reporting rules, but also of a significant omission from these rules. It is an act for which the tax shelter reporting rules levy no explicit sanction.<sup>258</sup>

The absence of any sanction for filing unnecessary disclosure statements with IRS makes the decision to overdisclose an obvious one for both conservative and aggressive types. For conservative types, when there is a real question over whether a clearly nonabusive transaction is reportable un-

der a broad application of the rules, erring on the side of disclosure is easy. For aggressive types, overdisclosure is even better than costless—it could actually enable them to avoid potentially significant costs that would occur if IRS detected their abusive tax shelters.

By contrast, current tax law contains severe penalties for taxpayers and advisors who fail to disclose their participation in reportable transactions or who file disclosure statements missing required information.<sup>259</sup> By failing to raise red flags for IRS, taxpayers and advisors who do not disclose undermine IRS's ability to detect abusive tax planning and collect the proper amount of revenue. The principle underlying the high penalties for nondisclosure, consequently, is to force taxpayers and advisors to internalize these costs. As this article has demonstrated, overdisclosure can be equally disruptive to IRS's detection efforts as nondisclosure by providing IRS with so much information that red flags become very difficult, if not impossible, to identify. Despite this likely harm, the tax law contains no symmetrical monetary penalty for taxpayers and advisors who overdisclose.

Because the delivery of too much irrelevant information to IRS can have the same adverse consequences as the delivery of too little relevant information, the tax law should impose monetary penalties not only for nondisclosure, but also for overdisclosure.

While IRS and the tax law have not considered the use of penalties for acts of overdisclosure, other institutions and bodies of law have implemented such penalties.<sup>260</sup> As the following discussion illustrates, one simple and efficient model for penalizing taxpayers and advisors who report their participation in nonabusive transactions is California's recently enacted monetary penalties for individuals who use the 911 emergency telephone system to report nonemergency events.

### **Nonemergency 911 Calls**

As the Federal Government has mandated in recent years that wireless telephones have access to the 911 emergency telephone system, local fire and police stations throughout the U.S. have reported a dramatic increase in calls to 911 that do not relate to real emergencies.<sup>261,262</sup>

In California, for example, of the nearly eight million 911 calls from wireless telephone callers in 2007, approximately 45 percent of those calls did not relate to emergencies.<sup>263</sup> Some of the nonemergency calls, California officials reported, were from callers with real problems, but who should have sought help elsewhere, such as an individual seeking assistance regarding his email address or a landlord asking police to serve an eviction notice.<sup>264</sup> Other nonemergency calls originated with prank callers, such as individu-

als who dialed 911 to complain about late delivery of recently ordered pizza or to inquire about the upcoming week's weather report.<sup>265</sup> According to California officials, as a result of the increased volume, more than one-third of calls can go unanswered during high volume times.<sup>266</sup>

In 2008, the California legislature responded to this situation by enacting high penalties for individuals who use, or for parents of minors who allow the use of, the 911 telephone system "for any reason other than because of an emergency," which is defined as "any condition in which emergency services will result in the saving of a life, a reduction in the destruction of property, or quicker apprehension of criminals," among other specifically described events.<sup>267</sup> Under California's new penalty structure, an individual receives an initial warning for the first nonemergency call, a \$50 penalty for the second call, a \$100 penalty for the third, and a \$250 penalty for all future nonemergency calls.<sup>268</sup>

Proponents of the California legislation have argued that it will cause the type of individuals who have placed frivolous 911 calls in the past—either out of ignorance or bad intent—to refrain from placing such calls after considering the potential penalties.<sup>269</sup> According to the bill's author, the new penalties are intended to "better deter this dangerous behavior by more immediately imposing significant sanctions on illegal callers."<sup>270</sup>

### **Application to Tax Shelter Disclosure**

Just as frivolous 911 calls impede the ability of emergency service providers to deliver life-saving aid, overdisclosure causes IRS agents to spend considerable time investigating highly complex nonabusive transactions rather than those involving abusive tax planning.<sup>271</sup> And, just as 911 operators receive calls from two types of individuals, the ignorant and the malicious, IRS receives unnecessary disclosure from both conservative and aggressive types.<sup>272</sup> In light of these similarities, the Government might fine taxpayers or advisors who disclose nonabusive activities in the same way that California imposes escalating penalties for nonemergency 911 calls.

Despite the common traits of the two types of unhelpful reporting, there is a significant difference that may reduce the feasibility of monetary penalties for overdisclosure. Most individuals can quickly determine whether an event is a real emergency before placing a call to 911. Taxpayers and advisors, on the other hand, may not be able to determine as easily whether a transaction qualifies as potentially abusive under the tax shelter reporting rules.

This distinction begs caution in imposing fines like those for frivolous 911 calls on taxpayers and advisors who overdisclose nonabusive activi-

ties. Because IRS cannot identify an abusive tax shelter without seeing it, requests for information from taxpayers and advisors must contain some level of generality. A monetary penalty for overdisclosure, especially when combined with the existing high penalties for nondisclosure, could understandably increase taxpayer and advisor confusion.<sup>273</sup>

A response to this potential design obstacle could be to limit penalties to taxpayers and advisors who disclose the most obviously nonabusive transactions—those that IRS has explicitly included on an angel list.

Because the transactions on an angel list are nonabusive and clearly described, they would provide adequate advance notice of disclosure that could subject taxpayers and advisors to overdisclosure penalties. As the previous subpart discussed, IRS aims to keep angel lists as specific as possible, to avoid creating loopholes through which taxpayers or advisors could avoid disclosing information that is relevant to tax shelter detection.<sup>274</sup>

Of course, the angel lists would not alleviate all uncertainty, and a monetary penalty for overdisclosure should not apply if a taxpayer or advisor was honestly unsure whether a particular transaction was exactly like one on the angel list. To deal with this situation, an exception could apply to any taxpayer or advisor who received a private letter ruling from the IRS allowing disclosure.<sup>275</sup>

In summary, under this proposal, any taxpayer or advisor who discloses a transaction included on an IRS angel list would be subject to a monetary penalty for each disclosure, unless the taxpayer or advisor has sought and received a private letter ruling from IRS permitting disclosure of the transaction at issue. This proposed penalty for acts of overdisclosure would apply on a strict liability basis. It would supplement, not replace, those penalties that apply under current law for acts of nondisclosure.

### **Rationale**

The proposed penalty would better deter aggressive types from overdisclosing than current law, would cause conservative types to increase their care when filing disclosure statements, and would be a more administrable approach to the overdisclosure response than other alternatives.

**Increased Deterrence.** While the proposed penalty would not apply to all forms of overdisclosure, it would increase the cost of burying information about an abusive tax position amid a sea of disclosure statements regarding specifically designated nonabusive transactions. The aggressive hedge fund that continues to file disclosure statements regarding plain vanilla total return swaps, as a way to hide its notional principal contract tax shelter, would now face a potential monetary penalty for each instance of disclosing an angel list

transaction.<sup>276</sup> Further, because the proposed penalty would apply separately to each occurrence of overdisclosure, it would be most effective against aggressive taxpayers and advisors. Aggressive types may calculate the new potential cost of overdisclosure and determine that it is no longer a practical detection avoidance strategy. As a result, the proposed penalty could enhance IRS's ability to detect and challenge abusive tax planning.

**Increased Care.** As well as deterring intentional excessive reporting of nonabusive transactions, the proposed penalty would cause conservative taxpayers and advisors to take more care in filing disclosure statements. Just as California's new penalty structure causes residents to consider whether a particular event is a real emergency before dialing 911, the proposed penalty would motivate conservative types to check an IRS angel list before disclosing a particular nonabusive transaction. The proposed penalty, thus, would also enhance IRS's detection efforts by forcing conservative taxpayers and advisors to internalize the cost of unreasonable caution in complying with the tax shelter reporting rules.

**Administrability.** The administrability of the proposed penalty, especially when compared with alternative penalty structures, is one of its most attractive attributes.

The proposed penalty is simple. In the same way that California's penalty applies to each nonemergency 911 call, the proposed penalty would apply to each disclosure of a nonabusive transaction contained on an IRS angel list.<sup>277</sup> Like California's penalty, the proposed penalty applies on a strict liability basis, and thus does not require an inquiry into the intent of taxpayers or advisors filing unnecessary disclosure statements or other factual matters.<sup>278</sup>

The proposed penalty would be much easier to administer than the broad antiabuse standards other areas of the law have applied in comparable situations. In securities fraud cases, courts have applied the "doctrine of buried facts" where corporations have publicly disclosed material facts in a manner that obscures their significance.<sup>279</sup> For example, when a corporation discloses a director's conflict of interest in a lengthy public filing amid unrelated text, a court may not find this disclosure adequate to shield the corporation from liability to investors. Because the doctrine of buried facts requires heavy factual analysis and is "not logically susceptible to [a] bright line test," it would be a difficult approach to apply in the context of tax shelter reporting.<sup>280</sup> IRS and the courts would need to consider such issues as the number of nonabusive transactions a taxpayer disclosed at the same time as disclosing an abusive one, as well as the content of the disclosure statements, before determining whether disclosure of the abusive transaction should be disregarded for purposes



of the nondisclosure penalties. The proposed penalty negates the need for any similarly fact-intensive inquiries.

**Advantages Over “Self-Adjusting Penalty.”** The proposed penalty is also a more appropriate approach to overdisclosure than Raskolnikov’s “self-adjusting penalty.”<sup>281</sup> As an illustration of Raskolnikov’s penalty structure, a taxpayer who reports an illegitimate charitable deduction on the same line of a tax return as a large number of legitimate charitable deductions would be subject to a monetary penalty that is based not on the value of the fraudulent deduction, but rather on the value of the legitimate deductions.<sup>282</sup> Raskolnikov’s penalty applies only when a taxpayer has claimed both a legitimate and an illegitimate tax benefit.<sup>283</sup>

As this article has demonstrated, however, disclosure statements that describe solely nonabusive transactions can still weaken IRS’s ability to detect abuse.<sup>284</sup> When an overly cautious taxpayer discloses a transaction that is plain vanilla yet complex, IRS agents may spend significant time and resources reviewing the details of the transaction. To apply Raskolnikov’s self-adjusting penalty in this scenario, it would not apply to the conservative taxpayer since he or she has only disclosed information to IRS regarding nonabusive transactions.

The proposed overdisclosure penalty could apply to this scenario. It applies to any disclosure of a nonabusive transaction on an IRS angel list, on a strict liability basis, regardless of the other types of transactions that a taxpayer has disclosed. So, in this context, the proposal has a much broader reach than Raskolnikov’s self-adjusting penalty.

### Potential Objections

Likely objections to penalizing overdisclosure are that it could result in time-consuming penalty disputes between taxpayers and IRS, send mixed signals to taxpayers and advisors regarding what they are required to disclose, and shift the current overdisclosure response to a different medium. Structural features of the proposed penalty, however, should adequately address these concerns.

**Penalty Disputes.** The first likely objection to a monetary penalty for overdisclosure is that it could encourage litigation over the penalty. Such disputes, opponents might argue, would distract IRS from focusing on details of the underlying abusive transactions. Daniel Shaviro has written that monetary penalties for taxpayers who disclose too much unhelpful information would “prove too much of a distracting and costly detour from litigating issues of substance.”<sup>285</sup>



While this may be a valid criticism of a penalty for any disclosure of transactions that ultimately are not abusive tax shelters, it is much less compelling in the case of the proposed penalty. Because the proposed penalty applies only to taxpayers and advisors who disclose transactions precisely contained on IRS angel lists, disputes over whether the penalty applies should be minimal.

**Mixed Signals.** Another potential criticism is that the combination of penalties for failure to disclose, and penalties for overdisclosure, may leave taxpayers and advisors scratching their heads in uncertainty over what information they are required to disclose to IRS.

Again, the structure of the proposed penalty should alleviate this concern. If the proposed penalty were implemented, taxpayers and advisors would err on the side of disclosure, as they are instructed to do under current law. Before filing a disclosure statement, they would simply need to confirm that it does not relate to a transaction explicitly exempted from disclosure by an angel list. The anticipatory angel lists proposed above should, thus, reduce potential taxpayer and advisor uncertainty.

**Shifted Overdisclosure.** The last likely objection to the proposed penalty is that it would merely shift the overdisclosure response to a different medium. Opponents might argue that the exception from the proposed penalty, for disclosures covered by a private letter ruling, may simply cause taxpayers and advisors to flood IRS with requests for private letter rulings.

This objection is misguided because it ignores important features of the private letter ruling process. First, private letter ruling requests involve considerable transaction costs, including the fees charged by IRS and, more significantly, by counsel, and expenses related to the taxpayer's back-and-forth discussions with IRS.<sup>286</sup> It is unlikely that aggressive taxpayers would ignore the potentially onerous costs of requesting private letter rulings for a mere attempt to distract IRS from their abusive tax strategies. Second, requests for private letter rulings are not addressed by the Office of Tax Shelter Analysis.<sup>287</sup> As such, it is unlikely that excessive private letter ruling requests would interfere with the detection efforts of the Office of Tax Shelter Analysis.

## Nontax Documentation

The last proposal I offer to reduce overdisclosure is a reconsideration of the type of information that taxpayers are required to disclose to IRS.

IRS currently mandates that taxpayers filing reportable transaction disclosure statements also provide written descriptions of the disclosed transac-

tions.<sup>288</sup> An inherent weakness in this disclosure model is that the content of this description is in the total control of the taxpayer. Conservative types may submit pages of detailed and thorough discussion in order to convince IRS that their disclosed transactions are not abusive, while aggressive types may do the same in order to obfuscate the true tax avoidance purpose of their transactions. The length and complexity of these submissions may slow IRS's detection capability.<sup>289</sup>

A contrasting disclosure model could require taxpayers to provide IRS with nontax documentation, such as written descriptions of the transaction that the taxpayer prepared for actors other than IRS.

IRS has implemented this approach in other contexts, such as private letter ruling requests. When a taxpayer requests a private letter ruling, IRS requires a detailed description of the transaction and the taxpayer's opinion of how the tax law should apply to it.<sup>290</sup> For some transactions, IRS also requires copies of particular documents the taxpayer wrote for purposes other than tax compliance, such as descriptions of the transaction prepared for its board of directors.<sup>291</sup> IRS reviews the nontax documentation to confirm that the taxpayer has not misrepresented the true motivation underlying its transaction.<sup>292</sup>

The nontax documentation approach could be incorporated into the tax shelter reporting rules, though its scope would need to be limited in the interest of administrability. Since individual taxpayers may not regularly prepare written descriptions of their transactions for nontax-related purposes, it may be unproductive to apply this requirement to them. Business taxpayers, such as corporations and partnerships, are the type of taxpayers most likely to produce and maintain nontax documentation. And because the goal of this model is to equip IRS with transaction descriptions written for a nontax audience, this disclosure requirement should not apply to documents written for internal tax-compliance staff.

One practical formulation of this approach would be a requirement that, when a corporation or partnership files a reportable transaction disclosure statement with IRS, it must also attach any written description of the transaction that the taxpayer prepared for its chief executive officer, board of directors, shareholders, or partners, prior to filing the disclosure statement.

### **Rationale**

The nontax documentation approach could provide IRS with an important sorting mechanism that would enhance its ability to detect abuse, dissuade business taxpayers from filing unnecessary disclosure statements, and be difficult for business taxpayers to avoid.

**Sorting Mechanism.** A central rationale of this proposal is that, at least with respect to business taxpayers, it could better enable IRS to sort transactions that deserve continued examination from those that do not.

Nontax documentation could equip IRS with descriptions of the disclosed transactions that are more clear and concise than the written descriptions prepared especially for IRS. Average board members and chief executive officers are unlikely to be fluent in the language of tax law. They are also busy people who must digest significant amounts of written information daily. When a tax director explains a transaction in a memorandum for a large corporation's chief executive officer, he or she she may provide a bullet point discussion in layman's terms of the purpose and potential tax consequences of the transaction. The clarity and brevity of nontax documentation may enable IRS to distinguish more quickly an ordinary business transaction from an abusive tax avoidance strategy.

It is also possible that nontax documentation could provide IRS with a more thorough explanation of how the taxpayer originally learned of the disclosed transaction. Correspondence between a tax director and senior management may explain a relationship with an advisor in more detail than the current reportable transaction disclosure statement.<sup>293</sup> If such correspondence reveals the participation of a known tax shelter promoter, IRS would immediately flag the disclosed transaction for further review.

**Overdisclosure Friction.** Another benefit of this proposal is that it could cause some tax directors to pause before disclosing transactions that are clearly outside the scope of the reportable transaction categories. Tax directors could perceive the submission of board presentations or written communications to the chief executive officer regarding a nonabusive transaction as risking unnecessary scrutiny by IRS agents. Increased exposure to inquiry by IRS could especially discourage conservative tax directors from filing unnecessary disclosure statements. A nontax documentation requirement, thus, could curb the tendency of some taxpayers to view overdisclosure as the default response.

**Difficult To Avoid.** An attractive feature of the proposal is that it may be difficult for business taxpayers to avoid creating a paper trail regarding tax strategies they eventually must disclose to IRS. IRS often designates specific transactions as subject to mandatory disclosure after significant numbers of taxpayers have used them to claim tax benefits.<sup>294</sup> The consequence of retroactive disclosure requirements is that a written presentation regarding a now reportable transaction may have been prepared before IRS designated the transaction as one that must be disclosed. If IRS subsequently designated it as a listed transaction or a transaction of interest, the business taxpayer would have to attach

copies of the presentation to its reportable transaction disclosure statement. Deliberate noncompliance or fraud would be the only ways this business taxpayer could avoid the nontax documentation requirement.

### Potential Objections

Opponents of the nontax documentation approach would likely argue that it would increase IRS's administrative burden, suffer from noncompliance, and force business taxpayers to provide IRS with legally privileged information. Each of these arguments is considered below.

**Increased Administrative Burden.** A probable objection to the nontax documentation requirement is that it could bury the Office of Tax Shelter Analysis in additional paper, extending the amount of time it takes for IRS agents to identify disclosure statements that reveal questionable transactions.

This objection overlooks unique ways in which IRS could utilize the nontax documents, compared to what it currently receives. IRS could specifically search for deviations between a business taxpayer's description of a transaction in its disclosure statement and its characterization of the same transaction to its chief executive officer or board of directors. One team of IRS agents could review business taxpayers' written submissions in their disclosure statements, and a different team could review nontax documentation. The two teams could compare notes and identify inconsistencies. Strong deviations may prompt IRS to give a disclosed reportable transaction further review.

If the nontax documentation requirement created an administrative burden on IRS, or business taxpayers, its scope could be narrowed. For example, the proposal could apply to nontax documents produced during a fixed time period, such as 1 to 2 years prior to the business taxpayer's submission of a disclosure statement. Another modification could restrict the requirement to business taxpayers with net assets in excess of a set threshold.

**High Noncompliance Risk.** Another likely objection is that business taxpayers could respond to the new requirement by filing disclosure statements that omit incriminating documents, or by simply failing to disclose any additional documents at all.

Such noncompliance concerns, however, neglect key incentives that business taxpayers may have to file nontax documentation with IRS. Failure to file the required nontax documentation would incur high monetary and other penalties under existing law.<sup>295</sup> Just as high monetary penalties for nondisclosure have encouraged business taxpayers to increase their filing of disclosure statements, such penalties should also create a powerful incentive for business taxpayers to attach nontax documentation.<sup>296</sup> Further, conservative tax directors may comply out of fear that a reportable transaction disclosure

statement containing minimal nontax documentation could raise a new red flag for IRS and, consequently, invite unwelcome audit attention.

**Privileged Information.** Opponents of this proposal could also argue that it would force business taxpayers to submit documents that are legally privileged under the attorney-client privilege, statutory confidentiality protections, or the work product doctrine.<sup>297</sup>

Although such privilege claims have salience in other contexts, they should be significantly less relevant if IRS were to implement the notax documentation proposal.<sup>298</sup> First, because the proposal would apply to documentation prepared solely by the taxpayer, neither the attorney-client privilege nor the statutory confidentiality protections for advice from authorized tax practitioners should apply.<sup>299</sup> Second, the work product doctrine only applies to documents that were prepared “in anticipation of litigation or for trial.”<sup>300</sup> While some courts have held that taxpayers may prepare tax accrual work papers in anticipation of litigation, this proposal targets documents that business taxpayers prepare for a different purpose: to seek necessary approval to engage in a particular transaction.<sup>301</sup> It is unlikely, therefore, that business taxpayers could argue successfully that they prepared these documents as a result of a “substantial threat” of litigation.<sup>302</sup>

## Conclusion

This article has argued that the Government should not only deter nondisclosure of information required by the tax shelter reporting rules, but should strive to prevent overdisclosure of information as well. Congress acted appropriately in 2004 by enacting severe penalties for taxpayers and advisors who simply turn their backs on the obligation to disclose reportable transactions. But by ignoring the potential for overdisclosure, the Government has allowed proverbial haystacks of unnecessary disclosure statements to accumulate and shield tax shelter needles from view.

The tax law, as this article has demonstrated, offers multiple incentives for conservative and aggressive taxpayers and advisors to embrace overdisclosure. Conservative types, who exhibit caution and prudence as core attributes, respond to broad and uncertain reporting requirements by erring on the side of disclosure rather than risk any chance of high nondisclosure penalties. And aggressive types, who rationally consider expected benefits and costs of risky tax positions, view excessive disclosure as a perfectly legal way to escape the high nondisclosure penalties while obscuring their use of abusive tax strategies.

As an alternative to the Government's wait-and-see approach to overdisclosure, this article has offered three proposals that could be implemented as an overall preemptive strategy. First, to prevent disclosure of clearly nonabusive activities, IRS should include them on anticipatory angel lists when designating new listed transactions. Next, as a means of explicitly deterring the overdisclosure response, Congress should enact targeted monetary penalties for taxpayers and advisors who report participation in any transaction on an IRS angel list. Last, to enhance IRS's ability to sort abusive transactions from nonabusive ones and to discourage overdisclosure, IRS should require business taxpayers to submit copies of nontax documentation when filing reportable transaction disclosure statements.

While some have praised the mandatory disclosure regime for winning the war on tax shelters, too much information can have the same value as too little.<sup>303</sup> Unless the Government recognizes this reality and reacts accordingly, the tax shelter victory may prove to be short-lived.

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## Endnotes

<sup>1</sup> Taxpayers are required to disclose the details of reportable transactions in which they participate by filing IRS Form 8886, *Reportable Transaction Disclosure Statement*, with the IRS Office of Tax Shelter Analysis in Ogden, Utah. Treas. Reg. § 1.6011-4 (d) (as amended in 2007). Tax advisors who qualify as material advisors are required to file IRS Form 8918, which bears similar information. Treas. Reg. § 301.6111-3(d)(1) (2007).

<sup>2</sup> See Kyle D. Logue, *Tax Law Uncertainty and the Role of Tax Insurance*, 25 Va. Tax Rev. 339, 363–68 (2005). Joshua D. Blank, *What's Wrong With*

*Shaming Corporate Tax Abuse*, 62 Tax L. Rev. (forthcoming 2009) (manuscript at 7–10, available at <http://ssrn.com/abstract=1365888>) (discussing the rules/standards distinction in tax shelter context).

- <sup>3</sup> Taxpayers and their advisors are required to report their participation in arrangements IRS has identified as listed transactions, those it considers potentially abusive, such as the Son of BOSS or Sale In/Lease Out arrangements. Treas. Reg. § 1.6011-4(b)(2); see, e.g., Rev. Rul. 2002-69, 2002-2 C.B. 760 (Lease In/Lease Out transactions); IRS Notice 2000-44, 2000-2 C.B. 255 (Son of BOSS transactions). The rules also require taxpayers and their advisors to inform IRS if they have pursued transactions possessing much more general features. Treas. Reg. §§ 1.6011-4(b)(3), (4).
- <sup>4</sup> Ronald A. Pearlman, *Demystifying Disclosure: First Steps*, 55 Tax L. Rev. 289, 323 (2002).
- <sup>5</sup> Pamela Olson, *Now That You've Caught the Bus, What Are You Going to Do With It? Observations From the Frontlines, the Sidelines, and Between the Lines, So to Speak*, 60 Tax Law. 567, 567 (2006).
- <sup>6</sup> See *infra* notes 54–65 and accompanying text for discussion.
- <sup>7</sup> See *infra* note 67 and accompanying text.
- <sup>8</sup> See Large & Mid-size Bus. Subgroup, Internal Revenue Serv. Advisory Council, Public Meeting Briefing Book 11–12 (2006), available at [http://www.irs.gov/pub/irs-utl/2006\\_irsac\\_public\\_meeting.pdf](http://www.irs.gov/pub/irs-utl/2006_irsac_public_meeting.pdf) (discussing overdisclosure problem); Dustin Stamper & Sheryl Stratton, *Guidance Coming on New Shelter Rules, Says Treasury Official*, 105 Tax Notes 785, 785 (2004).
- <sup>9</sup> Treas. Reg. § 1.6011-4(c)(4).
- <sup>10</sup> See *infra* note 67 and accompanying text.
- <sup>11</sup> See Jeremiah Coder, *Official Explains Changes in Final Transaction Reporting Regs*, 116 Tax Notes 925, 925 (2007) (quoting a senior Treasury Department official as stating “taxpayers have erred on the side of caution by narrowly construing [‘substantially similar’]”).
- <sup>12</sup> See *infra* note 67 and accompanying text.
- <sup>13</sup> See Gary S. Becker, *Crime and Punishment: An Economic Approach*, 76 J. Pol. Econ. 169 (1968); Alex Raskolnikov, *Crime and Punishment in Taxation: Deceit, Deterrence, and the Self-Adjusting Penalty*, 106 Colum. L. Rev. 569 (2006) (discussing expected value analysis).
- <sup>14</sup> Treas. Reg. § 1.6011-4(c)(4) (key reporting requirements must be “broadly construed in favor of disclosure.”).



- <sup>15</sup> See *infra* notes 223–225.
- <sup>16</sup> See Treas. Reg. § 1.6011-4(b)(2) for the definition of a listed transaction.
- <sup>17</sup> See *infra* notes 235–239 and accompanying text.
- <sup>18</sup> See *infra* notes 259–260 and accompanying text.
- <sup>19</sup> See Internal Revenue Serv., Examination Guide—Abusive Tax Shelters and Transactions, pt. III.A.1, at 2–6 (2003), available at [http://ftp.irs.gov/pub/irs-utl/iii.a\\_-\\_sources\\_to\\_identify\\_shelters.pdf](http://ftp.irs.gov/pub/irs-utl/iii.a_-_sources_to_identify_shelters.pdf) (describing role of reportable transaction statement in IRS audits).
- <sup>20</sup> Peter C. Canellos, *A Tax Practitioner's Perspective on Substance, Form, and Business Purpose in Structuring Business Transactions and in Tax Shelters*, 54 SMU L. Rev. 47, 52 (2001).
- <sup>21</sup> See *Black & Decker Corp. v. United States*, 436 F.3d 431 (4th Cir. 2006). For thorough discussion of this transaction, see Karen C. Burke, *Black & Decker's Contingent Liability Shelter: 'A Thing of Grace and Beauty'?*, 106 Tax Notes 577 (2005) and Ethan Yale, *Reexamining Black & Decker's Contingent Liability Tax Shelter*, 108 Tax Notes 223 (2005). See also Staff of Joint Comm. on Taxation, 108th Cong., Report of Investigation of Enron Corporation and Related Entities Regarding Federal Tax and Compensation Issues, and Policy Recommendations 109–35 (Comm. Print 2003) (outlining “Project Tanya” and “Project Valor,” contingent liability tax shelters that Enron utilized in the late 1990s).
- <sup>22</sup> Assuming a 35-percent tax rate, this taxable gain would result in a \$17.5-million tax liability for Blue Chip Co.
- <sup>23</sup> The fair market value of the Sub stock was \$1 million because it held \$51-million of assets (cash) and \$50 million of liabilities.
- <sup>24</sup> The fee of tax shelter promoters is often based on a percentage of the tax savings a particular product generates. When Enron engaged in contingent liability tax shelters Project Tanya and Project Valor, it paid its advisor, Arthur Anderson, \$500,000 and \$100,000, respectively. Staff of Joint Comm. on Taxation, 108th Cong., *supra* note 21, at 123, 127; see also David Cay Johnston, *Sham Shelters for Businesses Flourish as Scrutiny Fades*, N.Y. Times, Dec. 19, 2000, at A1 (describing fee structure of tax shelter promoters).
- <sup>25</sup> The tax theory was that Blue Chip Co.’s contribution of the \$51-million of cash and \$50-million of liabilities would qualify as a tax-free transaction because, in exchange, Blue Chip Co. would receive sufficient stock in Sub to control Sub immediately after the contribution. See IRC § 351 (2006). Blue Chip Co.’s tax basis in its newly received Sub stock would normally equal



the value of the cash contributed reduced by any liabilities assumed by Sub. See IRC § 358(a)(1) (2006). However, under the tax law at the time of this transaction, Blue Chip Co. argued that it was not required to reduce its basis in the Sub stock because the liabilities were the type that would “give rise to a deduction” in the hands of Blue Chip Co. IRC § 357(c)(3) (2006). Thus, Blue Chip Co. assumed a \$51-million tax basis in its Sub stock and when it received \$1 million on the sale of this stock, it claimed a \$50-million capital loss for tax purposes.

<sup>26</sup> See *Black & Decker Corp.*, 436 F.3d 431; *Coltec Indus., Inc. v. United States*, 454 F.3d 1340 (Fed. Cir. 2006), *cert. denied*, 127 S. Ct. 1261 (2007); IRS Notice 2001-17, 2001-1 C.B. 730.

<sup>27</sup> See, e.g., Richard M. Lipton, *New Tax Shelter Decisions Present Further Problems for the IRS*, 102 J. Tax’n 211, 211–17 (2005).

<sup>28</sup> See David Cay Johnston, *Perfectly Legal: The Covert Campaign to Rig Our Tax System to Benefit the Super Rich—and Cheat Everybody Else* (2003).

<sup>29</sup> See *supra* note 25.

<sup>30</sup> After IRS learned of the contingent liability tax shelter, Congress enacted a targeted statutory fix that prevented its further use. See IRC § 358(h).

<sup>31</sup> See David A. Weisbach, *Ten Truths About Tax Shelters*, 55 Tax L. Rev. 215, 221–22 (2002).

<sup>32</sup> See *id.* at 222–23.

<sup>33</sup> See Blank, *supra* note 2, at 47–48 (discussing reciprocity theory and tax compliance).

<sup>34</sup> See Treas. Reg. § 1.6011-4 (as amended in 2007) (taxpayer disclosure requirements); see also Treas. Reg. § 301.6111-3(d)(1) (2007) (material advisor disclosure requirements).

<sup>35</sup> See Sheryl Stratton, *Inside OTSA: A Bird’s-Eye View of Shelter Central at the IRS*, 100 Tax Notes 1246, 1246–47 (2003). Taxpayers are also required to attach the disclosure statement to their annual tax returns. Treas. Reg. § 1.6011-4(e).

<sup>36</sup> See Stratton, *supra* note 35, at 1247.

<sup>37</sup> Treas. Reg. § 1.6011-4(b)(2). The IRS maintains the list of abusive tax shelters on its Web site. See Internal Revenue Service, *Abusive Tax Shelters and Transactions*, <http://www.irs.gov/businesses/corporations/article/0,,id=97384,00.html> (last visited June 9, 2009).

- <sup>38</sup> IRS Notice 2002-35, 2002-1 C.B. 992.
- <sup>39</sup> IRS Notice 2002-65, 2002-2 C.B. 690.
- <sup>40</sup> IRS Notice 2001-17, 2001-1 C.B. 730.
- <sup>41</sup> See, e.g., *Black & Decker Corp. v. United States*, 436 F.3d 431 (4th Cir. 2006).
- <sup>42</sup> Treas. Reg. § 1.6011-4(c)(4).
- <sup>43</sup> Treas. Reg. § 1.6011-4(b)(6).
- <sup>44</sup> T.D. 9350, 2007-38 I.R.B. 607.
- <sup>45</sup> See U.S. Dep't of Treasury, *The Problem of Corporate Tax Shelters: Discussion, Analysis and Legislative Proposals* (1999); Joseph Bankman, *The New Market in Corporate Tax Shelters*, 83 Tax Notes 1775, 1780 (1999) (discussing tax shelter promoters' use of confidentiality restrictions).
- <sup>46</sup> See U.S. Dep't of the Treasury, *supra* note 45, at 24 (discussing promoters' refund arrangements).
- <sup>47</sup> Treas. Reg. §§ 1.6011-4(b)(3), (4). As Leandra Lederman has commented more generally, IRS should consider contact between a third-party tax shelter promoter and taxpayer regarding such a "tax-advantaged" strategy as "a red flag suggesting that the transaction—and similar transactions engaged in by other taxpayers—warrants closer scrutiny to determine its substantive content." Leandra Lederman, *Statutory Speed Bumps: The Roles Third Parties Play in Tax Compliance*, 60 Stan. L. Rev. 695, 738–39 (2007).
- <sup>48</sup> Treas. Reg. § 1.6011-4(b)(5). In addition to these categories, the Treasury has recently proposed adding patented tax strategies to the list of reportable transactions. Prop. Treas. Reg. § 1.6011-4(b)(7), 72 Fed. Reg. 54615, 54617 (Sept. 26, 2007).
- <sup>49</sup> The minimum fee in cases involving listed transactions and transactions of interest is \$10,000 where the advisee is an individual and \$25,000 where the advisee is a corporation. Treas. Reg. § 301.6111-3(b)(3)(i)(B) (2007). In all other cases, the minimum fee is \$50,000 where the advisee is an individual and \$250,000 where the advisee is a corporation. *Id.* § 301.6111-3(b)(3)(i)(A).
- <sup>50</sup> *Id.* § 301.6111-3(b)(1).
- <sup>51</sup> *Id.* §§ 301.6111-3(d)(1), (e).
- <sup>52</sup> *Id.* § 301.6112-1(a) (as amended in 2007).

- <sup>53</sup> *Id.* § 301.6112-1(e). In addition to the tax shelter disclosure rules, certain corporate taxpayers are subject to disclosure regimes that require them to explain aspects of their financial accounting statements. Large corporate taxpayers file Schedule M-3 with IRS, a form that requires them to reconcile inconsistencies between income they report for income tax and financial accounting purposes. IRS Form 1120, Schedule M-3 (2008), available at <http://www.irs.gov/pub/irs-pdf/f1120sm3.pdf>. The Financial Accounting Standards Board has also recently taken steps to require corporations to highlight tax positions they view as uncertain. See Fin. Accounting Standards Bd., FASB Interpretation No. 48: Accounting for Uncertainty in Income Taxes 1–7 (2006), available at <http://www.fasb.org/pdf/fin%2048.pdf>. Because the new financial accounting rules have only been in effect since 2006, their ability to “allow users of the financial statements to make judgments about management’s [tax] risk appetite” is unclear. Brett Cohen & Reto Micheluzzi, *Lifting the Fog: Accounting for Uncertainty in Income Taxes*, 113 Tax Notes 233, 234 (2006).
- <sup>54</sup> See *supra* notes 4–5 and accompanying text. Some academics, such as David Weisbach, have criticized the current tax shelter disclosure rules as a poor alternative to the introduction of a strong anti-abuse doctrine as a response to the tax shelter problem. David A. Weisbach, *The Failure of Disclosure as an Approach to Shelters*, 54 SMU L. Rev. 73, 73–74 (2001). But even Weisbach concedes that the use of tax shelter disclosure as a means of detection “will do no harm.” *Id.* at 73.
- <sup>55</sup> See U.S. Dep’t of Treasury, *supra* note 45, at 6 (“[Tax shelters] typically rely on one or more discontinuities of the tax law.”).
- <sup>56</sup> Corporate taxpayers are required to report their gains and losses from the sales of capital assets on Schedule D of IRS Form 1120. See IRS Form 1120, Schedule D (2008), available at <http://www.irs.gov/pub/irs-pdf/f1120sd.pdf>.
- <sup>57</sup> Press Release, Internal Revenue Serv., IRS E-file Moves Forward; Successfully Executes Electronic Filing of Nation’s Largest Tax Return (May 31, 2006), available at <http://www.irs.gov/newsroom/article/0,,id=157845,00.html>.
- <sup>58</sup> A corporation that files fewer than 250 returns (including information returns) in a given year is not required to file electronically. Treas. Reg. §§ 301.6011-5 (a)(1), (d)(5) (2007).
- <sup>59</sup> See Pearlman, *supra* note 4, at 294–98 (suggesting audit efficiency as one of the prime rationales for enhanced tax shelter disclosure).
- <sup>60</sup> Treas. Reg. § 1.6011-4(b)(4) (as amended in 2007).

- <sup>61</sup> See Internal Revenue Serv., *supra* note 19, pt. III.A.1, at 6.
- <sup>62</sup> For a list of these public announcements, see Internal Revenue Service, Tax Information for Corporations, <http://www.irs.gov/businesses/corporations> (last visited Apr. 21, 2009).
- <sup>63</sup> For a discussion of the procedure IRS uses to issue notices, see Tax Section, N.Y. State Bar Ass'n, Report No. 1126, Report on Proposed Regulations Amending the Reportable Transaction Disclosure and List Maintenance Rules 6 (2007), *available at* <http://www.nysba.org/Content/ContentFolders20/TaxLawSection/TaxReports/1126rpt.pdf>.
- <sup>64</sup> *Id.* at 7 n.11.
- <sup>65</sup> See Marvin A. Chirelstein & Lawrence A. Zelenak, *Tax Shelters and the Search for a Silver Bullet*, 105 Colum. L. Rev. 1939, 1950 (2005) (“[T]he government cannot win this game”).
- <sup>66</sup> Crystal Tandon, *Too Many Unlisted Transactions Being Reported, IRS Officials Say*, 113 Tax Notes 203, 203 (2006) (quoting Christopher B. Sterner, IRS division counsel, Large and Midsize Business Division).
- <sup>67</sup> See James S. Eustice, *Abusive Corporate Tax Shelters: Old “Brine” in New Bottles*, 55 Tax L. Rev. 135, 151 n.194 (2002) (hypothesizing that “the Service may well be overwhelmed with ‘overdisclosures,’ in which case the regulations [will be] unlikely to have a meaningful impact”); Daniel Shavero, *Disclosure and Civil Penalty Rules in the U.S. Legal Response to Corporate Tax Shelters*, 3 (N.Y. Univ. Sch. of Law & Econ. Research Paper Series Working Paper No. 07-05, 2007), *available at* <http://ssrn.com/abstract=955354> (theorizing that mandatory disclosure rules may be “compromised by taxpayer over-disclosure”).
- <sup>68</sup> Sam Young, *Officials Provide Update on Status of Tax Shelter Guidance*, 115 Tax Notes 707, 707 (2007) (quoting an IRS Office of Tax Shelter Analysis official).
- <sup>69</sup> For instance, under legislation enacted in 2005, New York has mandated “every taxpayer required to file a reportable or listed transaction disclosure statement with the Internal Revenue Service, to attach a duplicate disclosure statement to the New York tax return.” N.Y. State Dep’t of Taxation and Fin., *Tax Shelter Reporting 1* (2007), *available at* [http://www.tax.state.ny.us/pdf/stats/policy\\_special/tax\\_shelter\\_reporting/tax\\_shelter\\_reporting.pdf](http://www.tax.state.ny.us/pdf/stats/policy_special/tax_shelter_reporting/tax_shelter_reporting.pdf).
- <sup>70</sup> *Id.* at 2.
- <sup>71</sup> In 2001, for example, IRS received an aggregate of 86 reportable transaction disclosure statements on a nationwide basis. Large & Mid-Size Bus., Internal

Revenue Serv., Abusive Corporate Tax Shelters Background Paper 3 (2001), available at <http://www.irs.gov/pub/irs-utl/abbakppr.pdf>.

<sup>72</sup> Dennis J. Ventry, Jr., *Cooperative Tax Regulation*, 41 *Conn. L. Rev.* 431, 477 (2008).

<sup>73</sup> See Jeremiah Coder, *Tax Shelter Penalties Are Unclear and Weakly Enforced, Panelists Say*, 120 *Tax Notes* 383, 385 (2008) (quoting an IRS official as stating that “the audit level has been ‘cut to the bone’”).

<sup>74</sup> See Transactional Records Access Clearinghouse, *Audits of Largest Corporations Slide to All Time Low*, <http://trac.syr.edu/tracirs/newfindings/v13> (last visited June 9, 2009).

<sup>75</sup> See *id.* at fig.1 (illustrating the decline in IRS audit rates of corporations with assets of \$250-million or more from 64-percent in 1988 to 26-percent in 2007).

<sup>76</sup> See IRS Announcement 2000-12, 2000-1 CB 835 (describing Office of Tax Shelter Analysis as “centralized point for the review of tax shelter transactions”).

<sup>77</sup> Sheryl Stratton, *supra* note 35, at 1246 (“For all it has to do, OTSA is surprisingly sparsely staffed—it has seven program analysts, one manager, and no attorneys.”).

<sup>78</sup> *U.S. Tax Shelter Industry: The Role of Accountants, Lawyers, and Financial Professionals: Hearings Before the Permanent Subcomm. on Investigations of the S. Comm. on Governmental Affairs*, 108th Cong. 296 (2004) (statement of Calvin H. Johnson, Professor, University of Texas at Austin School of Law).

<sup>79</sup> Stamper & Stratton, *supra* note 8, at 785 (quoting Jonathan Ackerman, Attorney-Advisor with Treasury’s Office of Tax Policy).

<sup>80</sup> *Id.* I thank Alex Raskolnikov for helpful discussions regarding this point.

<sup>81</sup> *Id.*

<sup>82</sup> See, e.g., Heather Bennett, *DeNovio Clarifies IRS Disclosure Policy on Reportable Transactions*, 105 *Tax Notes* 15 (2004) (including statements by Nicholas J. DeNovio, IRS Deputy Chief Counsel, asking taxpayers not to overdisclose routine business transactions); Section of Taxation, Am. Bar Ass’n, *Comments Concerning Proposed Regulations Under Sections 6011, 6111, and 6112*, at 11 (2007) (“Treasury and IRS officials have repeatedly acknowledged the difficulties caused by over-disclosure [of routine transactions].”).

- <sup>83</sup> Tandon, *supra* note 66, at 203 (referring to the general sentiment among IRS officials at the meeting).
- <sup>84</sup> See IRS Notice 2001-16, 2001-1 C.B. 730 (describing the mechanics of the intermediary corporation tax shelter).
- <sup>85</sup> Michael L. Schler, *Ten More Truths About Tax Shelters: The Problem, Possible Solutions, and a Reply to Professor Weisbach*, 55 Tax L. Rev. 325, 337 (2002).
- <sup>86</sup> See IRS Notice 2001-16, 2001-1 C.B. 730. In an alternative version of the tax strategy, instead of corporation with tax losses, the intermediary corporation might be a tax-exempt entity, like a public charity. *Id.*
- <sup>87</sup> Corporations that file consolidated federal tax returns are generally treated as a single taxable unit, where the tax losses and credits of one group member offset the tax gains of another group member. IRC §§ 1502–1503 (2006).
- <sup>88</sup> IRS Notice 2001-16, 2001-1 C.B. 730.
- <sup>89</sup> See *id.*
- <sup>90</sup> See *id.*
- <sup>91</sup> See David Cay Johnston, *US Blocks 2 Shelters Intended to Avoid Taxes*, N.Y. Times, Jan. 19, 2001, at C4 (discussing *John H. Phipps, Inc. v. Commissioner*, No. 9695-00 (T.C. Sept. 13, 2000), a case before the United States Tax Court, involving recharacterization of a stock sale as an asset sale due to use of Native American tribe intermediary, based on IRS Notice 2001-16, 2001-1 C.B. 730).
- <sup>92</sup> See, e.g., IRS Notice 2008-20, 2008-6 I.R.B. 406; Letter From David S. Miller, Chair, New York State Bar Ass’n Tax Section to Eric Solomon, Assistant Secretary for Tax Policy, Dep’t of the Treasury & Douglas Shulman, Comm’r, Internal Revenue Serv. (May 23, 2008), available at [http://www.nysba.org/AM/Template.cfm?Section=Tax\\_Section\\_Reports\\_2008&CONTENTID=16428&TEMPLATE=/CM/ContentDisplay.cfm](http://www.nysba.org/AM/Template.cfm?Section=Tax_Section_Reports_2008&CONTENTID=16428&TEMPLATE=/CM/ContentDisplay.cfm).
- <sup>93</sup> For a discussion of this practice as it relates to hedge funds, see Michael Kosnitzky, *Protective Filings for Hedge Funds After the Jobs Act*, 109 Tax Notes 817 (2005).
- <sup>94</sup> Wayne R. Strasbaugh, *IRS Lays Mine Field for Some Stock Transactions*, Ballard Spahr Andrews & Ingersoll, LLP, News & Publications, Jan. 29, 2008, available at <http://www.ballardspahr.com/press/article.asp?ID=1980>.
- <sup>95</sup> IRS Notice 2008-20, 2008-6 I.R.B. 406, superseded by IRS Notice 2008-111, 2008-51 I.R.B. 1299.

- <sup>96</sup> See IRS Notice 2002-35, 2002-1 C.B. 992 (describing notional principal contract tax shelters).
- <sup>97</sup> See *id.*
- <sup>98</sup> *Id.*
- <sup>99</sup> *Id.*
- <sup>100</sup> *Id.*
- <sup>101</sup> Tandon, *supra* note 66, at 203.
- <sup>102</sup> See Gina Biondo & Allison Rosier, *The Effect of the Proposed Swap Regulations on the Hedge Fund Industry: Goodbye to Total Return Swaps?*, 103 Tax Notes 1171, 1172 (2004) (describing “plain vanilla” total return equity swap arrangements).
- <sup>103</sup> See *id.* at 1171–72.
- <sup>104</sup> IRS Notice 2006-16, 2006-9 I.R.B. 538.
- <sup>105</sup> See Logue, *supra* note 2, at 343–44.
- <sup>106</sup> Temp. Treas. Reg. § 1.6011-4T(b)(4) (2002).
- <sup>107</sup> See Richard M. Lipton, *New Disclosure and Listing Regulations Promise Headaches for Everyone*, in 1 Tenth Annual Real Estate Tax Forum 61, 74, 91 (PLI Tax Law & Estate Planning, Course Handbook Series No.14248 2008).
- <sup>108</sup> See *id.* at 74.
- <sup>109</sup> Preamble to *Proposed Regulations*, 71 Fed. Reg. 64496 (Nov. 2, 2006).
- <sup>110</sup> See Internal Revenue Serv., Partnership-Audit Technique Guide Ch. 9 (2007) (“Not all disclosures of reportable transactions disclosed to the Service are abusive.”).
- <sup>111</sup> Treas. Reg. § 1.6011-4(f)(2) (as amended in 2007).
- <sup>112</sup> *Id.*; see also Instructions for IRS Form 8886, at 5 (2007), available at <http://www.irs.gov/pub/irs-pdf/i8886.pdf> (explaining that a protective disclosure form is treated the same as an ordinary disclosure form).
- <sup>113</sup> Treas. Reg. § 1.6011-4(f)(2).--
- <sup>114</sup> See Internal Revenue Serv., Tax Accrual Workpapers Frequently Asked Questions, (April 24, 2007), <http://www.irs.gov/businesses/corporations/article/0,,id=146242,00.html>.

- <sup>115</sup> *Id.* (describing IRS procedures for tax accrual work paper requests in the case of protective disclosure statements). For further discussion, see Todd Simmons, *IRS Treats Protective Disclosures Inconsistently*, 27 Tax Adviser 426 (2006) (outlining rationale for filing protective disclosure statements).
- <sup>116</sup> George Jones, Treasury Advisor Explains “Transactions of Interest” Disclosure Regulations Designed to Give IRS Flexibility, CCH Tax Group (Aug. 31, 2007), [http://www.centerfortaxstudies.com/blog/taxnews/2007/08/21/treasury\\_advisor\\_explains\\_aquot\\_transact](http://www.centerfortaxstudies.com/blog/taxnews/2007/08/21/treasury_advisor_explains_aquot_transact) (discussing protective disclosure filings).
- <sup>117</sup> See Kosnitzky, *supra* note 93, at 817 (2005).
- <sup>118</sup> Jones, *supra* note 116 (quoting Anita C. Soucy, Attorney-Advisor in the Treasury’s Office of Tax Policy).
- <sup>119</sup> Sheryl Stratton, *Tax Bar Asks IRS to Disclose More Info About Shelter Disclosures*, 115 Tax Notes 20, 20 (2007) (quoting Tara P. Volungis, an attorney in the IRS’s Office of Associate Chief Counsel).
- <sup>120</sup> IRS Form 8886 (2007), available at <http://www.irs.gov/pub/irs-pdf/f8886.pdf>.
- <sup>121</sup> See Stratton, *supra* note 118.
- <sup>122</sup> IRS Form 8886, l. 7b, *supra* note 120, at 2; see also Instructions for IRS Form 8886, *supra* note 112, at 6 (“Describe each step of the transaction including all information known to you.”).
- <sup>123</sup> See Instructions for IRS Form 8886, *supra* note 112, at 5 (providing instructions for attaching additional pages).
- <sup>124</sup> See *id.*
- <sup>125</sup> Treas. Reg. § 301.6111-3(b)(3)(i) (2007) (minimum material advisor fees).
- <sup>126</sup> Richard M. Lipton & Robert S. Walton, *Final Regulations for the Tax Shelter Disclosure Regime: Making the Rules More User Friendly*, 107 J. Tax’n 196, 203 (2007).
- <sup>127</sup> Stratton, *supra* note 118, at 20 (quoting Christine Ellison, Branch Chief in the IRS’s Office of Associate Chief Counsel). This type of response to requests for information from IRS has become *embedded in popular consciousness*. For example, in a scene from the 2006 film *Stranger Than Fiction*, Ana Pascal, the owner of a small café under audit by IRS agent Harold Crick, hands Crick a large box bulging with papers, commenting “My tax files and receipts for the last three years.” An incredulous Crick queries, “You keep your files



like this?” Pascal responds, “No. Actually I’m quite fastidious. I put them in this box just to screw with you.” *Stranger Than Fiction* (Columbia Pictures, 2006).

- <sup>128</sup> See Internal Revenue Serv., *supra* note 19, pt. III.A.I, at 6 (describing multiple levels of internal IRS review).
- <sup>129</sup> See *supra* notes 84–92 and accompanying text.
- <sup>130</sup> See Internal Revenue Serv. Advisory Council, Public Meeting Briefing Book 10–16 (2006), available at [http://www.irs.gov/pub/irs-utl/2006\\_irsac\\_public\\_meeting.pdf](http://www.irs.gov/pub/irs-utl/2006_irsac_public_meeting.pdf).
- <sup>131</sup> *Id.* at 7–8.
- <sup>132</sup> *Id.* at 12.
- <sup>133</sup> *Id.* at 16.
- <sup>134</sup> See U.S. Dep’t of the Treasury, *supra* note 45, at 84 (describing the purpose of the mandatory disclosure regime).
- <sup>135</sup> *Id.*
- <sup>136</sup> IRC § 358(h) (2006) (which would prevent Blue Chip Co.’s tax loss on sale).
- <sup>137</sup> Jones, *supra* note 116 (quoting Anita C. Soucy, Attorney-Advisor in the Treasury’s Office of Tax Policy).
- <sup>138</sup> See Mark Battersby, *Tax Watch: The ‘Wall Street Rule’ Isn’t a Rule of Law; the IRS Insists*, Investment News, October 6, 2003, at 17.
- <sup>139</sup> See Michael Schler, *Effects of Anti-Tax-Shelter Rules on Nonshelter Tax Practice*, 109 Tax Notes 915 (2005) (“Every law firm in the country has been required to make an enormous effort to develop, and ensure ongoing compliance with, procedures relating to those transactions.”).
- <sup>140</sup> Weisbach, *supra* note 31, at 222. Worse, it is theoretically possible that some taxpayers may actually engage in nonabusive transactions so that they can disclose participation in them to IRS in addition to disclosing the use of much more questionable transactions. The motivation of taxpayers and advisors who may purposely overdisclose nonabusive transactions to IRS is discussed further in *infra* notes 223–225.
- <sup>141</sup> See, e.g., Claire A. Hill, *The Law and Economics of Identity*, 32 Queen’s L.J. 389 (2007) (describing identity benefits and tradeoffs of tax avoidance for different taxpayers); Alex Raskolnikov, *Revealing Choices: Using Taxpayer Choice to Target Tax Enforcement*, 109 Colum. L. Rev. (forthcoming May 2009) (characterizing taxpayers as “gamers” versus “non-gamers”).

<sup>142</sup> Canellos, *supra* note 20, at 55.

<sup>143</sup> See Bankman, *supra* note 45, at 1782 (discussing audit lottery).

<sup>144</sup> Canellos, *supra* note 20, at 56.

<sup>145</sup> See Nanette Byrnes & Louis Lavelle, *The Corporate Tax Game*, Bus. Wk., Mar. 31, 2003, at 78 (discussing taxpayers' "willingness to push the envelope").

<sup>146</sup> Treas. Reg. § 1.6011-4(c)(4) (as amended in 2007).

<sup>147</sup> *Id.* (emphasis added).

<sup>148</sup> Terence F. Cuff, *Los Angeles Practitioner Comments on Shelter Regs*, 100 Tax Notes 1059, 1067 (2003).

<sup>149</sup> By contrast, courts in copyright infringement disputes involving such cases consider whether a defendant has produced a work "substantially similar" to that of the plaintiff by asking "whether the accused work is so similar to the plaintiff's work that an ordinary reasonable person would conclude that the defendant unlawfully appropriated the plaintiff's protectible expression by taking material of substance and value." *Atari, Inc. v. N. Am. Phillips Consumer Elecs. Corp.*, 672 F.2d 607, 614 (7th Cir. 1982). In other words, under this standard, judges seek to determine whether an ordinary reasonable person would find two works to be basically the same except for "minute differences." *Country Kids 'N City Slicks, Inc. v. Sheen*, 77 F.3d 1280, 1288 (10th Cir. 1996). Without this standard, in a copyright infringement case, as Judge Learned Hand once wrote, "a plagiarist would escape [liability] by immaterial variations." *Nichols v. Universal Pictures Corp.*, 45 F.2d 119, 121 (2d Cir. 1930).

<sup>150</sup> Treas. Reg. § 1.6011-4(c)(4).

<sup>151</sup> *Id.*

<sup>152</sup> Letter From David S. Miller to Eric Solomon & Douglas Shulman, *supra* note 92, at 3.

<sup>153</sup> Treas. Reg. § 1.6011-4(c)(4).

<sup>154</sup> Tandon, *supra* note 66, at 203.

<sup>155</sup> See Internal Revenue Serv., *supra* note 19, pt. III.A.1, at 6 (describing the purposes of mandatory disclosure).

<sup>156</sup> H.R. Rep. No. 108-755, at 373, 447 (2004) (Conf. Rep.).

<sup>157</sup> IRS Notice 2001-17, 2001-1 C.B. 730.

- <sup>158</sup> Treas. Reg. § 1.6011-4(b)(2).
- <sup>159</sup> IRS Notice 2001-17, 2001-1 C.B. 730.
- <sup>160</sup> See Kosnitzky, *supra* note 93, at 817.
- <sup>161</sup> See *id.*
- <sup>162</sup> Treas. Reg. § 1.6011-4(e)(2)(i).
- <sup>163</sup> *Id.*
- <sup>164</sup> See Chirelstein & Zelenak, *supra* note 65, at 1940–42.
- <sup>165</sup> See *generally id.*
- <sup>166</sup> Cuff, *supra* note 148, at 1069–70.
- <sup>167</sup> Treas. Reg. § 1.6011-4(e)(2)(i).
- <sup>168</sup> See, e.g., IRS Notice 2006-16, 2006-9 I.R.B. 538 (exempting nonabusive transactions from the requirement to disclose abusive notional principal contract tax shelters); Rev. Proc. 2007-20, 2007-7 I.R.B. 517 (describing agreements with contractual protection that are not required to be disclosed); Rev. Proc. 2004-66, 2004-50 I.R.B. 966 (describing loss transactions that are not required to be disclosed).
- <sup>169</sup> See, e.g., Bennett, *supra* note 82, at 15. In response to a question regarding the likelihood that IRS would issue guidance regarding overdisclosure, Nicholas J. DeNovio, IRS Deputy Chief Counsel commented, “it is unlikely that the government would issue guidance based on what it observes about disclosures.” *Id.*
- <sup>170</sup> See *supra* note 96 and accompanying text.
- <sup>171</sup> The IRS issued the original notice on May 6, 2002 and the corrective guidance on February 13, 2006. See IRS Notice 2006-16, 2006-9 I.R.B. 538; see also *infra* note 247 and accompanying text.
- <sup>172</sup> See Internal Revenue Serv. Advisory Council, *supra* note 130, at 12.
- <sup>173</sup> IRS Notice 2001-16, 2001-1 C.B. 730 (original notice describing intermediary corporation tax shelter).
- <sup>174</sup> Steven D. Bortnick, *Beware the Inadvertent Tax Shelter*, Tax Update (Pepper Hamilton LLP) June 2008, at 4, available at <http://www.pepperlaw.com/pepper/publications>.
- <sup>175</sup> Strasbaugh, *supra* note 94. In addition, when IRS has issued public announcements designating tax strategies as transactions of interest, it has not

provided substantive legal analysis of the strategies described. See, e.g., IRS Notice 2007-72, 2007-36 I.R.B. 544 (no “Analysis” section).

- <sup>176</sup> Letter From David S. Miller to Eric Solomon & Douglas Shulman, *supra* note 92.
- <sup>177</sup> Sam Young, *No Immediate Relief From ‘Midco’ Transaction Notice*, 119 Tax Notes 1304, 1304 (2008). Shortly before this Article was published, IRS attempted to respond to this concern by issuing a revised notice, IRS Notice 2008-111, 2008-51 I.R.B. 1299, containing an additional factor to its definition of the intermediary corporation tax shelter. The revised Notice incorporates into the definition the existence of a “plan” to avoid federal income tax on the disposition of appreciated assets, and describes ways in which a taxpayer “knows or has reason to know the transaction is structured to effectuate the Plan.” IRS Notice 2008-111, 2008-51 I.R.B. 1299, 1300. This Notice is further discussed in notes 235-257, *infra*.
- <sup>178</sup> See Staff of the Joint Comm. on Taxation, 108th Cong., Description of H.R. 4520, The “American Jobs Creation Act of 2004” 150 (Comm. Print 2004) (discussing reasons for penalties).
- <sup>179</sup> IRC § 6707A(b)(2)(A) (2006).
- <sup>180</sup> *Id.* § 6707A(b)(2)(B).
- <sup>181</sup> *Id.* § 6707A(b)(1)(A).
- <sup>182</sup> *Id.* § 6707A(b)(1)(B).
- <sup>183</sup> H.R. Rep. No. 108-755, at 373 (2004) (Conf. Rep.).
- <sup>184</sup> IRC § 6707A(d)(3).
- <sup>185</sup> *Id.* § 6662A(c) (2006).
- <sup>186</sup> *Id.* § 6707(b)(2).
- <sup>187</sup> *Id.* § 6708(a)(1) (2006).
- <sup>188</sup> IRS Notice 2001-17, 2001-1 C.B. 730 (contingent liability tax shelter).
- <sup>189</sup> Analogous responses have occurred in other areas of the law. For example, some torts scholars have argued that the threat of liability for failure to provide consumers with adequate warning labels on products “induces manufacturers to provide extensive and often excessive disclosure at the cost of sacrificing clarity and salience for vital information.” Howard Latin, “Good” Warnings, Bad Products, and Cognitive Limitations, 41 UCLA L. Rev. 1193, 1293 (1994).

<sup>190</sup> IRC § 6708(a)(1).

<sup>191</sup> See *id.* § 6103 (2006).

<sup>192</sup> *Id.* § 6707A(e) (2006).

<sup>193</sup> See, e.g., Toni M. Massaro, *Shame, Culture, and American Criminal Law*, 89 Mich. L. Rev. 1880, 1883 (1991); James Q. Whitman, *What Is Wrong With Inflicting Shame Sanctions?*, 107 Yale L.J. 1055, 1063–68 (1998).

<sup>194</sup> See Blank, *supra* note 2.

<sup>195</sup> See, e.g., Christian M. McBurney, *Public Companies Need to Identify Reportable Transactions to Avoid SEC Disclosure and IRS Penalties*, 103 J. Tax'n 5 (2005) (outlining procedures that tax directors should adopt to avoid disclosure failures); Herbert N. Beller, *The New Penalty Regime: Proceed With Caution!*, 106 Tax Notes 311 (2005) (describing the significance of shaming sanctions for nondisclosure).

<sup>196</sup> Johnston, *supra* note 28.

<sup>197</sup> Raskolnikov, *supra* note 13, at 572.

<sup>198</sup> See *id.*

<sup>199</sup> See *id.*

<sup>200</sup> See *id.*

<sup>201</sup> The reason for this result is that the aggressive taxpayer may believe that if he engages in overdisclosure, the chance IRS will successfully detect and challenge a dubious tax position will not increase significantly, or at all, over the chance of IRS detection in the absence of filing of the required reportable transaction disclosure statement. I thank Sarah Lawsky for helpful discussions regarding this point.

<sup>202</sup> Treas. Reg. § 1.6011-4(b)(4) (as amended in 2007).

<sup>203</sup> *Id.*

<sup>204</sup> Cuff, *supra* note 148, at 1067.

<sup>205</sup> Anna Franklin, *The Illustrated Encyclopaedia of Fairies* 155 (Paper Tiger, 2005). In the legend, a farmer demands that a leprechaun reveal the location of his gold. When the leprechaun shows the farmer the ragwort plant under which he has buried the gold, the farmer ties a red ribbon to it while he leaves to find a shovel. When the farmer returns, he discovers that the leprechaun has tied red ribbons to every ragwort plant in the field. *Id.* I thank Larry Zelenak for suggesting this analogy.

- <sup>206</sup> See *supra* notes 146–167 and accompanying text.
- <sup>207</sup> IRC § 6501(c)(10) (2006).
- <sup>208</sup> *Id.* § 6501(a).
- <sup>209</sup> *Id.*
- <sup>210</sup> See Bankman, *supra* note 45, at 1781–82.
- <sup>211</sup> Treas. Reg. § 1.6011-4(e)(3) (as amended in 2007).
- <sup>212</sup> *Id.* § 1.6011-4(f)(2).
- <sup>213</sup> *Id.*
- <sup>214</sup> *Id.* § 1.6011-4(d).
- <sup>215</sup> IRS Form 13976 (2008), available at <http://www.irs.gov/pub/irs-pdf/f13976.pdf>.
- <sup>216</sup> Treas. Reg. § 1.6011-1(b) (as amended in 2007).
- <sup>217</sup> *Id.*
- <sup>218</sup> IRC § 293(b) (1934).
- <sup>219</sup> Michael I. Saltzman, IRS Practice and Procedure ¶ 7B.02[3][a] (WG&L 2005) (describing evidence of fraud).
- <sup>220</sup> *Id.* ¶ 7B.01 [3].
- <sup>221</sup> Treas. Reg. § 1.6011-4(c)(4) (as amended in 2007).
- <sup>222</sup> See *supra* notes 179–184 and accompanying text.
- <sup>223</sup> See *supra* note 79.
- <sup>224</sup> Bennett, *supra* note 82, at 15 (quoting Nicholas J. DeNovio, IRS Deputy Chief Counsel). At a similar meeting in 2006, another IRS official commented to the audience, “there are going to be instances where [disclosure] isn’t a gray area and it isn’t a judgment call, and we would ask that practitioners thoughtfully analyze the situation and come to the appropriate conclusion.” Tandon, *supra* note 66, at 203 (quoting Christopher B. Sterner, Division Counsel, IRS Large and Midsize Business Division).
- <sup>225</sup> Internal Revenue Service, Explanation of Notice 2006-16—Impact on Required Disclosures (June 5, 2009), <http://www.irs.gov/businesses/article/0,,id=158628,00.html>.

- <sup>226</sup> See, e.g., Pearlman, *supra* note 4, at 303 (“Do taxpayers really care whether the Service is overburdened? . . . As far as I am concerned, that is the Service’s problem.”).
- <sup>227</sup> See *id.*
- <sup>228</sup> See *supra* notes 146–167 and accompanying text.
- <sup>229</sup> As the discussion above demonstrated, IRS continues to face the overdisclosure response, despite its attempted preventative measures.
- <sup>230</sup> See, e.g., Bennett, *supra* note 82, at 15 (quoting Nicholas J. DeNovio, IRS Deputy Chief Counsel).
- <sup>231</sup> See *supra* note 71 and accompanying text.
- <sup>232</sup> IRC § 6662(a), (d) (2006) (setting forth reasonable cause as a defense to accuracy penalty equal to 20-percent of the understatement of tax).
- <sup>233</sup> See *supra* notes 196–210 and accompanying text.
- <sup>234</sup> Further, without the nondisclosure penalties, IRS would have little authority under other provisions of the tax law to deter taxpayers and advisors from ignoring the obligation to disclose participation in reportable transactions. See, e.g., *Germantown Trust Co. v. Comm’r*, 309 U.S. 304 (1940) (holding that a wrong form filed was still considered a tax return for purposes of statute of limitations).
- <sup>235</sup> See *supra* notes 168–169 and accompanying text.
- <sup>236</sup> See, e.g., IRS Notice 2001-17, 2001-1 C.B. 730.
- <sup>237</sup> IRS, Recognized Abusive and Listed Transactions (May 28, 2009), <http://www.irs.gov/businesses/corporations/article/0,,id=120633,00.html>.
- <sup>238</sup> See *id.*
- <sup>239</sup> T.D. 9350, 2007-38 I.R.B. 607, 608. (“IRS and Treasury Department may choose to publish advance notice and request comments”).
- <sup>240</sup> See, e.g., IRS Notice 2008-20, 2008-6 I.R.B. 406 (avoiding use of this language in describing intermediary corporation tax shelters).
- <sup>241</sup> See, e.g., Rev. Proc. 2004-66, 2004-50 I.R.B. 966; Rev. Proc. 2007-20, 2007-7 I.R.B. 517 (describing certain types of agreements with contractual protection that are not required to be disclosed).
- <sup>242</sup> Rev. Proc. 2004-66, 2004-50 I.R.B. 966-67 (describing certain types of loss transactions that are not required to be disclosed).

- <sup>243</sup> *Id.* For an illustration of a similar angel list, see Rev. Proc. 2007-20, 2007-7 I.R.B. 517 (describing certain types of agreements with contractual protection that are not required to be disclosed).
- <sup>244</sup> See *infra* note 251.
- <sup>245</sup> See *supra* notes 146–154 and accompanying text. Shortly before this Article was published, IRS released a revised Notice describing the components of an intermediary corporation tax shelter, IRS Notice 2008-111, 2008-51 I.R.B. 1299. The Notice includes three “safeharbor” transactions that do not qualify as intermediary corporation tax shelters. *Id.* While the Notice is certainly a step in the right direction, it was issued seven years after the IRS’s original designation of the intermediary corporation tax shelter as a listed transaction. See IRS Notice 2001-16, 2001-1 C.B. 730.
- <sup>246</sup> See, e.g., *supra* note 152 and accompanying text.
- <sup>247</sup> See *supra* note 152 and accompanying text.
- <sup>248</sup> See *supra* note 152 and accompanying text.
- <sup>249</sup> For example, when the Treasury announced its intention to create a new category of reportable transactions, “transactions of interest,” conservative taxpayers and advisors protested. Tax Section, N.Y. State Bar Ass’n, *supra* note 63, at 4–9.
- <sup>250</sup> The proposal would respond to a frequent request from taxpayers and advisors for explanatory guidance. See, e.g., Stratton, *supra* note 118, at 20 (quoting a practitioner at an IRS presentation as commenting, “Feedback on what IRS doesn’t need would be helpful”).
- <sup>251</sup> David M. Schizer, *Enlisting the Tax Bar*, 59 Tax L. Rev. 331, 358 n.64 (2006).
- <sup>252</sup> See IRC § 6707A(b)(2)(B) (2006) (\$200,000 penalty for corporations).
- <sup>253</sup> See *id.* § 6707A(b)(1)(B) (\$50,000 penalty for corporations).
- <sup>254</sup> See, e.g., Schizer, *supra* note 251, at 358.
- <sup>255</sup> See *supra* notes 168–171 and accompanying text.
- <sup>256</sup> See *supra* note 225 and accompanying text.
- <sup>257</sup> For example, although IRS Notice 2008-111, 2008-51 I.R.B. 1299, contains three “safeharbor” transactions that do not qualify as intermediary corporation tax shelters, an aggressive type may pursue the overdisclosure strategy by purposely disclosing to IRS its participation in one of these transactions. See note 245 for a description of IRS Notice 2008-111.



<sup>258</sup> See IRC § 6707A (containing penalties for nondisclosure, but not over-disclosure).

<sup>259</sup> See *supra* notes 179–185 and accompanying text.

<sup>260</sup> In the litigation context, for instance, the Federal Rules of Civil Procedure empower judges to force a party to bear the attorney fees and other costs of an opposing party if it engages in dumptruck discovery or here-is-the-warehouse tactics. See Fed. R. Civ. P. 37(b) (permitting sanctions for failure to cooperate with discovery requests). See *infra* notes 279–280 and accompanying text for additional examples.

<sup>261</sup> See Federal Communications Commission, Wireless 911 Services, <http://www.fcc.gov/cgb/consumerfacts/wireless911srv.html> (last visited June 9, 2009) (describing 911 requirements for wireless telephone service providers).

<sup>262</sup> See Alex Johnson, *911 Systems Choking on Non-Emergency Calls: Pranksters, Clueless Callers Block Lines for Legitimate Crises*, MSNBC.com, Aug. 5, 2008, <http://www.msnbc.msn.com/id/26040857> (describing the nationwide overload of frivolous 911 calls from “pranksters” and “clueless callers”).

<sup>263</sup> *Id.* (quoting a California Highway Patrol official).

<sup>264</sup> See *Bigger Penalties for Frivolous 911 Calls Signed Into Law*, KESQ.com, July 12, 2008, <http://www.kesq.com/Global/story.asp?S=8664998> [hereinafter *Frivolous 911 Calls*].

<sup>265</sup> See *id.*

<sup>266</sup> See *id.* (“During times when call volume is high, . . . more than a third of cell phone calls made to the California Highway Patrol—the agency to which all such calls are initially routed—go unanswered, making frivolous phone calls all the more disruptive.”).

<sup>267</sup> Assemb. B. 1976, 2007–2008 Leg., Reg. Sess. (Cal. 2008).

<sup>268</sup> *Id.*

<sup>269</sup> *Frivolous 911 Calls*, *supra* note 264.

<sup>270</sup> Bill Analysis, Assemb. B. 1976, 2007–2008 Leg., Reg. Sess. (Cal. June 11, 2008), available at [http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab\\_1951-2000/ab\\_1976\\_cfa\\_20080611\\_123529\\_sen\\_floor.html](http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_1951-2000/ab_1976_cfa_20080611_123529_sen_floor.html).

<sup>271</sup> See Federal Communications Commission, Wireless 911 Services, <http://www.fcc.gov/cgb/consumerfacts/wireless911srv.html> (last visited June 9, 2009) (describing 911 requirements for wireless telephone service providers).

<sup>272</sup> See *supra* notes 141-225.

<sup>273</sup> See IRC § 6707A (2006).

<sup>274</sup> See *supra* notes 235-239 and accompanying text for discussion of angel lists.

<sup>275</sup> A private letter ruling is a written determination from IRS regarding the expected tax treatment of a particular transaction. See Rev. Proc. 2008-1, 2008-1 I.R.B. 1, 6 (describing purpose of private letter rulings).

<sup>276</sup> See Kosnitzky, *supra* note 93, at 817-18 (describing the requirement that hedge funds and material advisors disclose possible reportable transactions in protective filings in order to avoid stiff penalties).

<sup>277</sup> Assemb. B. 1976, 2007-2008 Leg., Reg. Sess. (Cal. 2008).

<sup>278</sup> *Id.*

<sup>279</sup> See, e.g., *Gould v. Am.-Hawaiian S.S. Co.*, 535 F.2d 761, 778 (3rd Cir. 1976) (disclosure of material facts in footnotes and appendices considered nondisclosure); *Kohn v. Am. Metal Climax, Inc.*, 458 F.2d 255, 290-91 (3rd Cir. 1972) (material facts cannot be “buried” in explanatory materials).

<sup>280</sup> *TCG Sec., Inc. v. S. Union Co.*, No. 11282, 1990 Del. Ch. LEXIS 12, at \*18 (Del. Ch. Jan. 31, 1990) (“Whether information is ‘buried’ is the type of determination not logically susceptible to the bright line test that [plaintiff] attempts to create.”).

<sup>281</sup> Raskolnikov, *supra* note 13.

<sup>282</sup> *Id.* at 572.

<sup>283</sup> *Id.*

<sup>284</sup> See *supra* notes 128-140.

<sup>285</sup> Shaviro, *supra* note 67, at 30.

<sup>286</sup> See Rev. Proc. 2008-1, 2008-1 I.R.B. 1, 16-28, 68 (describing requirements for private letter ruling request, including payment of \$11,500 user fee).

<sup>287</sup> See *id.* at 6.

<sup>288</sup> IRS Form 8886, l. 7b, *supra* note 120; see also Instructions for IRS Form 8886, *supra* note 112, at 6 (“Describe each step of the transaction including all information known to you.”).

<sup>289</sup> See *supra* notes 120-127 and accompanying text.

<sup>290</sup> See Rev. Proc. 2008-1, 2008-1 I.R.B. 1, 16-28 for detailed discussion of procedures related to taxpayer submission of private letter ruling requests.

- <sup>291</sup> The IRS applies this requirement when taxpayers request private letter rulings regarding the applicability of Section 355 of the Internal Revenue Code, a provision that enables a corporation and its shareholders to avoid current tax liability on the distribution of stock of a controlled subsidiary. See Rev. Proc. 96-30, 1996-1 C.B. 696.
- <sup>292</sup> For example, a corporate taxpayer may represent in its written submission to IRS that it will not have any continuing relationship with a subsidiary corporation from which it plans to separate in a tax-deferred “spin-off” transaction (a requirement under the tax law), but it may have described the extent of the relationship differently in a written summary for the board of directors.
- <sup>293</sup> The current form on which a taxpayer discloses a reportable transaction asks only for the name and address of any individual or entity to which it paid a fee for tax advice regarding the transaction. The form does not require the taxpayer to describe the nature of its relationship with this individual or entity. IRS Form 8886, l. 6, *supra* note 120.
- <sup>294</sup> See *supra* notes 162–163 and accompanying text.
- <sup>295</sup> For a description of these penalties, see *supra* notes 179–195 and accompanying text.
- <sup>296</sup> See *supra* notes 179–195 and accompanying text.
- <sup>297</sup> See IRC § 7525 (2006) (“Confidentiality Privileges Relating to Taxpayer Communications”).
- <sup>298</sup> See *U.S. v. Textron Inc.*, 507 F. Supp. 2d 138, 141, 155 (D.R.I. 2007) (denying the government’s request for taxpayer accrual work papers), *aff’d in part and vacated in part on other grounds*, 553 F.3d 87, 106 (1st Cir. 2009). But see Dennis J. Ventry, Jr., *Protecting Abusive Tax Avoidance*, 120 Tax Notes 857 (2008) (criticizing the *Textron* decision).
- <sup>299</sup> IRC § 7525.
- <sup>300</sup> Fed. R. Civ. P. 26(b)(3).
- <sup>301</sup> *Textron*, 507 F. Supp. 2d at 149–51.
- <sup>302</sup> *SmithKline Beecham Corp. v. Apotex Corp.*, 232 F.R.D. 467, 484 (E.D. Pa. 2005).
- <sup>303</sup> Olson, *supra* note 5, at 567–70.

# Graph Query: A Tool To Detect Patterns of Abusive Tax Transactions

*Rahul Tikekar, Kay Wolman, and Larry May, Internal Revenue Service*

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The U.S. Internal Revenue Service (IRS) is charged by the U.S. Congress to collect taxes from individuals and businesses and to enforce the tax laws. Every year, the IRS receives and processes about 200 million tax returns. Each return is filed by an “entity.” Example entities include an individual (e.g., John Doe), a married couple (e.g., John and Betty Doe), a corporation, a partnership, an S corporation, and a Limited Liability Corporation (LLC).

Many entities associate with other entities. For example, an individual may work for a corporation. As another example, two individuals can form a partnership. Similarly, an individual and an LLC can form a partnership, which in turn can form a new partnership with yet another partnership, and so on. There is no limit to the complexity of associations among entities.

There exist special types of entities called flowthrough or passthrough entities. These are legal entities that are formed by one or more entities—known as shareholders or owners. The term “flowthrough” is used to describe the flow of income and losses to the shareholders or owners. The flowthrough entity is not subject to income tax at the entity level. The income generated in the business will flow through to the shareholders or the owners of the business, and the owners have to pay taxes on that income. Examples of flowthrough entities include S corporations, LLCs, and partnerships.

A tax shelter is any method of reducing taxable income that results in reduced tax. There are many tax shelters that are legal. Investing in a company-sponsored retirement plan is a common method to reduce taxable income. The objective of this paper is to describe work being performed to identify illegal tax shelters—associations among entities that are formed solely for the purpose of abusing tax laws, so as to avoid paying taxes—also termed Abusive Tax Avoidance Transactions (ATATs).

## Abusive Tax Avoidance Transactions

Although there is no all-inclusive definition of an ATAT, the term generally includes any partnership, trust, investment plan, or any other entity

or association designed or structured to obtain tax benefits not allowed by law. Promoters are aggressively marketing ATAT schemes that undermine the U.S. voluntary tax system. The business of promoting ATAT schemes has expanded in recent years to encompass all socioeconomic levels. In response to the explosion of abusive tax strategies offered to the general public, the IRS Commissioner has designated investigations of these promotions as a key compliance strategy for the IRS.

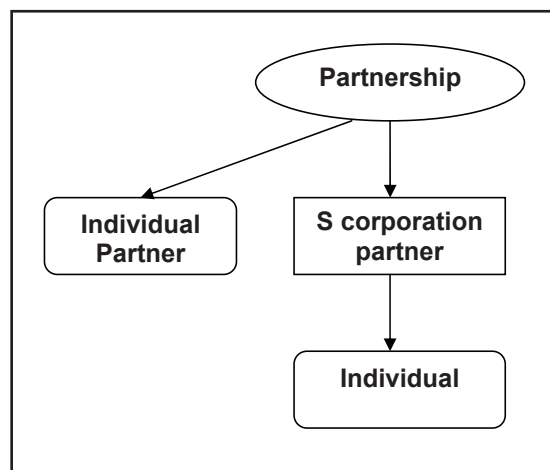
While IRS enforcement personnel attempt to be versed in all areas of Federal taxation, they tend to focus or specialize in one or two domains, as well as one or two non-Federal jurisdictions. ATATs are frequently structured to shroud the facts through a fabricated complex situation. From a tax perspective, this obfuscation occurs along three general lines:

1. Increased complexity through dispersed geographic locations and multiple jurisdictions (both State and international).
2. Increased complexity by exploiting the organizational structure of the IRS. A transaction may involve multiple operating divisions and multiple tax specialties.
3. Increased complexity by intermingling and manipulating various aspects of tax law to obtain unintended consequences. ATATs include schemes that rely on:
  - The misuse of disparate sections of the Internal Revenue Code (IRC) to produce clearly unintended results.
  - The intentional manipulation of potential ambiguities of the tax laws in order to claim tax benefits improperly.
  - Sham arrangements having no economic significance other than tax reduction.
  - Gross valuation overstatements that ascribe a value to an asset or service that is more than the asset's correct value, and the overvaluation results in a tax reduction.
  - False statements about the allowability of tax benefits to participants, which are contrary to clearly established law.

A very simple example of an ATAT follows. IRS regulations require that partners in a partnership pay a self-employment tax on income received from the partnership. Shareholders in an S corporation, however, are not required to pay a self-employment tax on the flowthrough income distributed from the S corporation. By creating an S corporation—as one of the partners—to receive income from a partnership that is then distributed to the

individual, it is possible for an entity to avoid paying the self-employment tax (Figure 1). This is an example of an ATAT because the S corporation is created solely with the objective of avoiding the self-employment tax.

Some ATATs are designed to appear, and often are, quite complex. They can involve various financial products, as well as numerous entities, including partnerships, corporations, LLCs, and offshore entities. This, by design, is an effort to make it difficult to track and follow a transaction and,



**Figure 1**

hence, difficult to determine the abusive nature of that transaction. Through the use of flowthrough entities, such as LLCs and partnerships, it is also difficult to identify the tax benefits claimed on a participant's tax return.

Once an ATAT promoter has devised a particular scheme, it may be replicated multiple times for the benefit of many clients.

An IRS agent may discover an abusive transaction through a routine examination and draw on the expertise of many specialists to fully develop the issue. After detecting the abusive transaction of one taxpayer, it is natural to wonder if other taxpayers are involved in similar schemes.

Currently, the selection of returns for examination of improper claims is based on that return alone. It would be useful to get a more complete picture of an entity by piecing together various associations of each entity. But this exercise is difficult and time-consuming. In the example given above, the individual's return would show an income from the S corporation and

may not seem suspicious. A more complete picture of the individual's relationship, as in Figure 1, would be beneficial in performing the function of identifying compliance risk. The challenge lies in providing such a picture of an entity quickly using data from actual tax returns.

## **Link Analysis**

IRS began to transcribe Schedule K1 for the first time for Tax Year 2000. Schedule K1 is used by flowthrough entities to report to shareholders/owners (and to the IRS) how much income, etc., is flowing through to them (the shareholders/owners). The Market Review and Technology Assessment committee proposed that IRS use link analysis technology to make use of the newly available K1 data. Link analysis technology uses the concept of relationships (or links) between entities to present to a user the associations, or links, in which a given entity participates. As a result of the recommendation to use link analysis technology, in August 2002, the IRS Office of Research contracted with MITRE Corporation to build a prototype link analysis tool, as a proof of concept, to demonstrate the value of link analysis. This prototype was completed fairly quickly in May 2003.

Link analysis of an entity begins with the user specifying the taxpayer identification number (TIN), which could be a Social Security number or an employer identification number, of an entity of interest. The tool then searches a database and provides the associations of the entity with those that are documented on Schedule K1. Usually these associations are presented in the form of a diagram (or graph) that shows the entity in question connected (or linked) to other entities to which it is related (see Figure 2)—links connecting two entities show the flow of money between them. In addition, the associations of the other entities involved may also be shown. Such a graph provides a “big picture” that is often very useful in making decisions. The tool shows the entities involved even in the most complex arrangement. Such a tool can help auditors and researchers identify questionable transactions, some of which may turn out to be ATATs.

During the use of a link analysis tool, an analyst may discover an abusive pattern—or structure—that appears frequently enough so as not to consider it a coincidence. The analyst may want to know how many, and which, other entities participate in a similar structure. One option the analyst may use would be to continue to use the link analysis tool to specify many different TINs and look for that pattern in the resulting graph. Not only is such a technique inefficient but, quite possibly, infeasible as well. A tool that can provide the answer to the analyst's question would prove very useful in identifying entities involved in ATAT schemes.

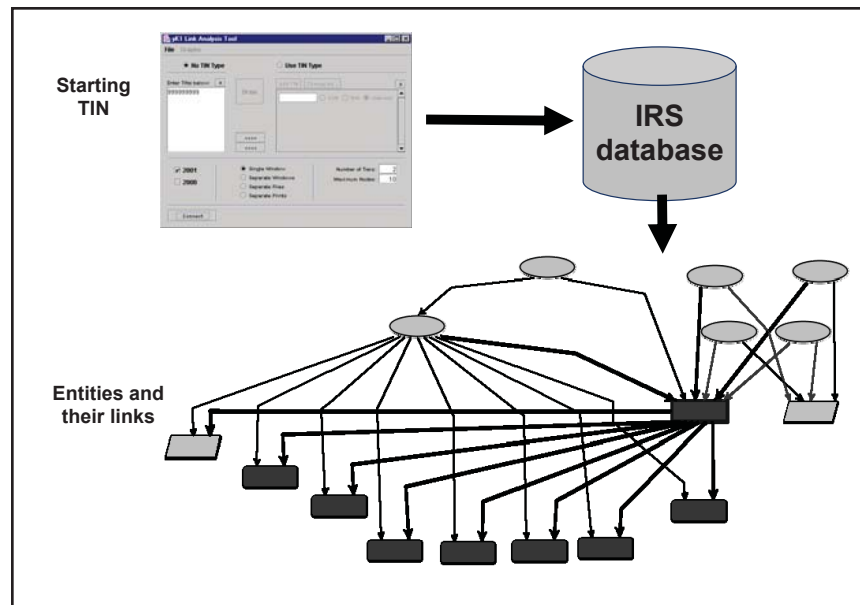


Figure 2

## Problem Statement

This paper describes a tool that will provide a solution to the following problem: Given a structure or pattern of entities and their relationships, find other entities in the database that participate with yet other entities in a relationship similar to the provided pattern. The input to the tool will be the pattern in question, specified in the form of a graph, while the output will be a list of entity TINs. In the computer science domain, such a problem of finding matching graphs is called the graph isomorphism problem. Finding solutions to the graph isomorphism problem usually takes a great deal of computing power and time.

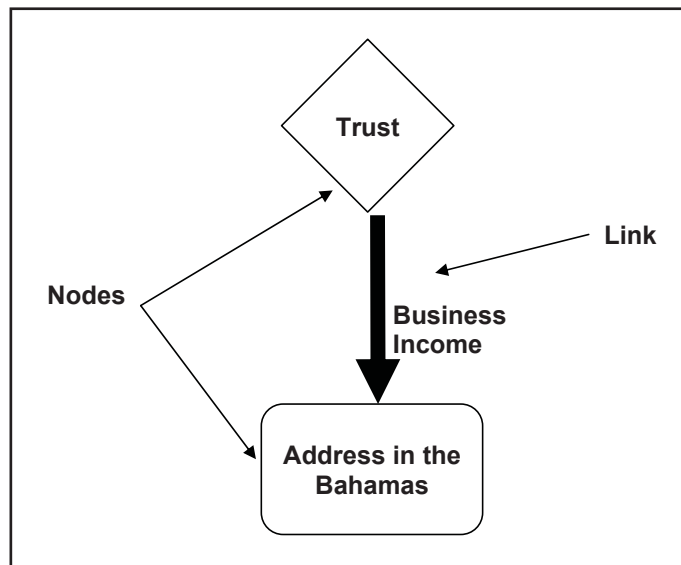
## Modeling ATATs as Graphs

Because ATATs can be conceptualized as associations among entities, they can be modeled as graphs involving nodes (vertices) and edges (links). Conditions can be imposed on nodes and edges, thereby creating, what is termed, a labeled graph. The graph then becomes the starting point for further explorations. This is in contrast to a link analysis tool when the starting point is



usually an entity TIN. Thus, a tool to look for graphs complements a link analysis tool.

A graph is a collection of nodes and edges, where nodes are usually connected by edges. Figure 3 shows an example of a graph involving two nodes. One node represents a trust entity, while the other represents an address entity. The link between the two nodes represents a flow of money. Thus, the graph models schemes where money from a trust goes into an entity that is based outside the U.S.



**Figure 3**

A more complicated, but still oversimplified, version of an ATAT can be demonstrated in the following scenario:

- Suppose that Entity A makes a significant gain (say \$100M) on the sale of a business and does not wish to pay the tax on the gain.
- A creates a wholly owned S corporation, Entity B. As a flowthrough entity, the profits and losses of B pass through to the owner A and are reported on A's tax return.
- A and B form a partnership with a third entity, Entity C. C is chosen in such a way that C has losses from another operation.

- A, B, and C in turn form a partnership entity, Entity D. Because of C's apparent business expertise, the partnership agreement allocates 100 percent of the profits to C and 100 percent of the losses to B.
- D then executes foreign currency transactions that generate a gain of \$100M and a loss of the same amount, and at the same time. Thus, as the result of those two transactions, no money is gained or lost, but accounting records are created.
- As per the partnership agreement, C takes the paper gain but pays no taxes on it because the losses from its other operation offset the gains.
- B takes the paper loss of \$100M which flows through to A—this is only an artificial loss because the currency trades canceled each other.
- Thus, A receives 100 percent of the tax loss which offsets the actual gain that A made.

This transaction can be modeled by the graph shown in Figure 4. In an actual abusive transaction, additional specifics may be very important to the overall identification. Items like the size and type (i.e., ordinary income versus capital gain) of dollar amounts; the number and type of entities involved; the State or country of each entity; return characteristics like initial year and/or final year; and even name or industry) can all be critical components of the ultimate pattern.

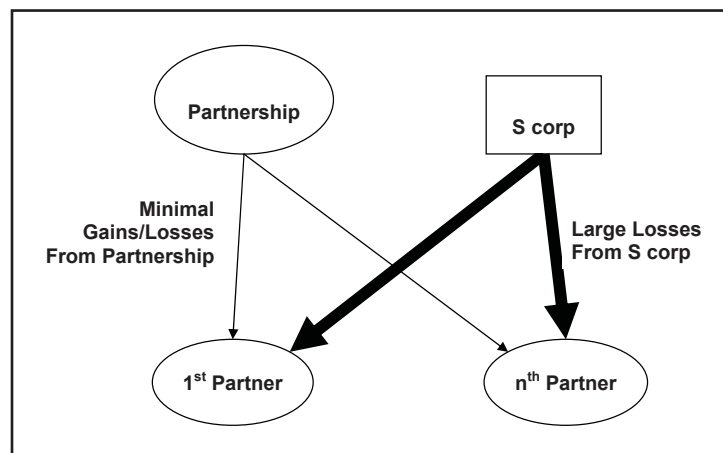


Figure 4

Entities involved in an ATAT, and depicted by nodes in a graph, can represent one of several possible entity types from the tax domain: individuals (Form 1040), businesses (Form 1120), partnerships (Form 1065), S corporations (Form 1120S), trusts (Form 1041), locations (any form with an address), etc. Similarly, vertices can represent Schedule K1, affiliations (Form 851), etc.

Son of BOSS is an ATAT scheme that was once very popular. Figure 5 shows how a Son of BOSS scheme, involving a partnership (P), an S corporation (S), and two individuals (I), can be modeled using graphs.

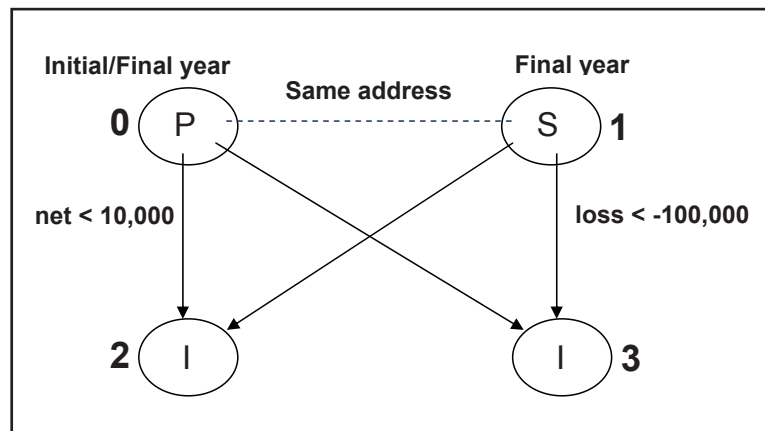


Figure 5

## Graph Matching Process

Graph Query consists of three main components: the front-end (which provides an interface for the user to specify graphs), the graph query engine (which performs the task of finding matching graphs in a relational database), and the database itself (which holds the data of all the entities and their associations).

The process begins with the user specifying the pattern of interest in the form of a graph. This is accomplished via a drag-and-drop feature of the front-end interface. The user is presented with a palette of nodes (1040, 1120, etc.) from which nodes can be dragged onto a canvas. Nodes can further be customized by imposing conditions on them. Edges can be used to connect two or more nodes. Just like nodes, a palette of edges is presented to

the user, and they can be further customized by imposing conditions on them. A snapshot of the user interface with a graph drawn is shown in Figure 6.

The next step in the graph-matching process is to convert the user-defined graph into a language called the Graph Representation Language (GRL). GRL is a powerful language that is used to describe a graph. It includes notations to specify nodes and links, along with conditions and constraints on them. Users comfortable with GRL can finetune the graph and its conditions—this creates a more powerful graph, something that may not be possible via the front-end.

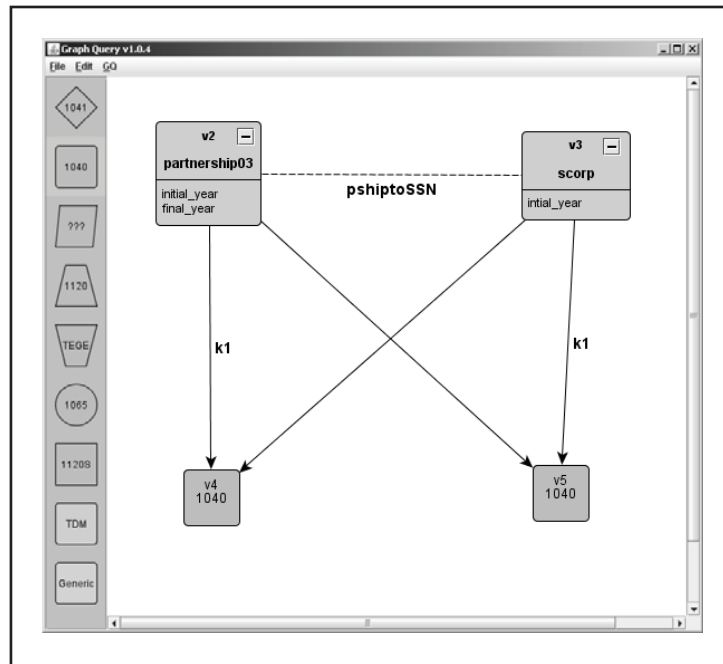


Figure 6

A complete GRL describing a graph consists of a sequence of statements. Each statement describes either a node and its conditions or an edge and its conditions. A fragment from a GRL representing the graph in the snapshot in Figure 5. Statements that begin with “v” represent the vertices, and those that begin with “d” represent links.

```

v 0 partnership where init_year and final_year;
v 1 scorp where init_year;
v 2 individual;
v 3 individual;
d 0 2 k1 where net < 10000;
d 0 3 k1 where net < 10000;
d 1 2 k1 where loss < -100000;
d 1 3 k1 where loss < -100000;

```

The function of the graph query engine is to take the GRL containing the description of a graph and to run queries against the database to find matching entities. In order to accomplish this, the engine transforms GRL into another language, termed intermediate language (IL). The reason behind this is to replace the user-defined node and edge names and conditions with the actual table and column names from the database.

The IL bears a strong resemblance to the database language SQL. Each line in the GRL becomes a query to the database. To optimize the processing of queries, the statements in the IL are arranged according to the number of records that each statement is likely to retrieve. Each statement in the IL is then translated into SQL and executed against the database after which a list of entity TINs is returned.

These TINs become the input to the next IL and so on. Finally, the list of TINs returned by the last IL query would be of the entities that participate in the relationship described by the graph that was input to the tool. Figure 7 summarizes the process of processing a graph that was just described.

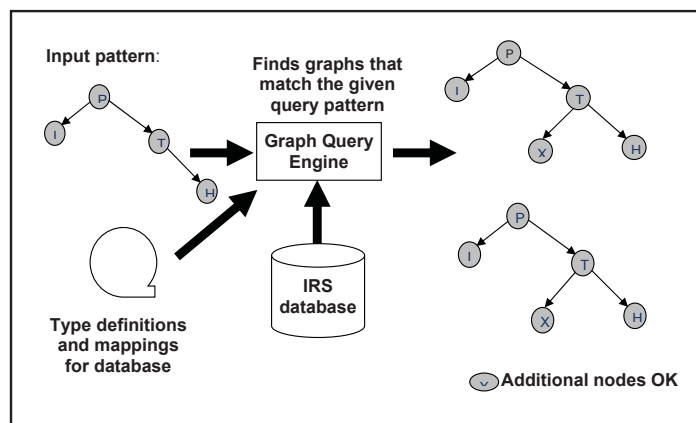


Figure 7

## **Conclusions and Future Work**

Graph Query is a powerful tool in the modeling and detection of abusive transactions and the identification of entities that participate in such transactions. A part of its power comes from the fact that it enables end-users not familiar with database technologies to specify complex and sophisticated ATAT patterns. Further, the tool has the potential to uncover vast amounts of fraud and interesting ways that are being used to avoid paying tax. In addition, the tool can be applied to a variety of problem domains. For example, if it were possible to model the characteristics of individuals who are likely to have offshore accounts, Graph Query could be used to find such individuals by changing the database against which the queries are executed.

There are many future avenues that can be pursued with Graph Query. One such opportunity involves the problem of frequent substructure discovery. As opposed to giving the tool a pattern and asking it to find entities that participate in that pattern, in this particular case, the tool is used to search a database for patterns that seem to be occurring frequently without knowing in advance what they look like. Some of these may well turn out to be ATATs that were not discovered before.

Also, enforcement workload selection can be aided by the concept of enterprise risk (rather than simply the risk associated with a single return). In this situation, once an enterprise has been defined, it may be possible to define the concept of risk associated with an enterprise. Workload selection processes will then involve looking for enterprises with the greatest risk. Graph Query could then be used to identify enterprises in the database that meet or exceed a specified risk threshold. As Graph Query is used in more situations, there will be many more problem-solving opportunities where it can be applied.

**6**



## **Tax Preparation Services**

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**Shackleford ♦ Webb**

# **Cognitive Ethical Reasoning of Tax Practitioners: A Preliminary Investigation Using a Tax-Specific Version of the Defining Issues Test (DIT)**

*Elaine Doyle, University of Limerick; Jane Frecknall-Hughes, The Open University Business School; and Barbara Summers, University of Leeds*

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**T**ax, once the remit of the “general practitioner” accountant and considered an offshoot of accounting, has grown in complexity and importance and has become a distinct and highly specialized profession in itself. Accounting practices of all sizes often have dedicated tax departments to handle tax compliance and tax planning activities. The combination of self-assessment systems, complex tax codes, increased penalties for non-compliance with tax legislation, and higher levels of cross border activity has resulted in an increased reliance on tax practitioners’ advice as taxpayers grapple with complying with the tax code in their domestic jurisdiction, as well as in foreign jurisdictions. The impact on worldwide exchequer revenue of non-compliance with tax legislation is considerable. As significant players in the tax compliance game, tax practitioners are in a position to influence the level of tax that their clients pay through their reporting recommendations, making them worthy of focused research.

The accounting profession in general has undergone severe criticism in the aftermath of numerous accounting scandals, and we have witnessed the fall of one of the biggest international accounting practices as a result of the Enron debacle. The KPMG tax shelter fraud case, in particular, proves that the tax profession has not gone untainted in the age of accounting and corporate scandals (Sikka and Hampton, 2005). These high-profile scandals have served to highlight the problems caused by differences in ethical judgement among accountants and tax practitioners, and the issue of ethics has been brought publicly to the forefront of the profession. While many studies in recent years have focused on ethics in accounting, very little work has been done on ethics in tax practice. This is despite the fact that ethical dilemmas involving tax issues were identified by members of the American Institute of Certified Public Accountants as posing the most difficult ethical problem for them (Finn et al., 1988, pp. 607-609).



At the core of the ethical debate is the question of how much a person or company is “obligated” to pay, and what exactly the tax professional should be prepared to do or advise to reduce the tax bill. The debate is not over “to pay or not to pay,” but, rather, about the ethical standard to be applied to determine what should be paid. In the context of ethical dilemmas, this could be framed along deontological principles (following an imperative to act inherently ethically) or consequentialist ones (whereby an assessment of overall effects determines an action’s ethicality) (Frecknall-Hughes and Moizer, 2004).

Tax practitioners work within a profession which is highly fragmented. In practice, we find tax advice being offered by a broad range of business professionals, including accountants, auditors, lawyers, barristers, former and current members of the Irish revenue authorities, and tax experts working within industry, as well as those officially designated as Registered Tax Consultants as a result of their membership of tax-dedicated professional bodies.<sup>1</sup> The term “tax practitioner” attempts to cover this diverse range of individuals. Some work as sole practitioners or in accounting, legal, or tax specialist partnerships and will provide various types of tax advice to their clients. Tax experts working in industry are more typically employees of a firm (by which we ordinarily mean a company or group of companies) and will identify with and serve only that company’s interests as heads or members of an in-house/internal tax department. Usually companies/groups of companies will be of considerable size before an internal department of this nature is warranted.

This fragmentation of the tax profession means that some professionals operating within it are subject to government regulation relating to aspects of their work other than tax (such as external auditors, solicitors, and barristers), some are subject to the independent regulation of their own professional institutes (members of the various accountancy and taxation bodies), and others may not be subject to regulation of any sort. Fragmented professional regulation may give rise to ethical dilemmas when tax practitioners comply with differing levels of ethical standards as dictated by a range of professional bodies—or, indeed, none at all. In Ireland, and elsewhere such as in the UK, anyone can set up in business as a tax adviser. It is very much a case of “caveat emptor,” which further complicates any attempt at establishing a common ethical standard for the profession.

Ethical reasoning is one of the components necessary for ethical behavior, according to the four component model of ethical behavior outlined

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<sup>1</sup> Tax experts working in industry may, of course, originate from any of the aforementioned groups, or those mentioned subsequently.

by Rest (1983). Given that ethical reasoning ability enables individuals to determine how they will behave when faced with an ethical dilemma, it is vitally important to the tax profession, the tax administration, the policy-makers, and the educators that we learn all we can about the ethical reasoning ability of tax practitioners and how this may impact on their ethical judgements.

The aim of this study is to examine the ethical reasoning of tax practitioners across the profession using a tax-context specific adaptation of a well-known and validated psychometric instrument, the Defining Issues Test (DIT). The study uses a  $2 \times 2$  full factorial design comparing ethical reasoning in the social and tax contexts across tax practitioners and lay people. The comparisons in such a design allow us to unpick the context in which dilemmas originate from the potential for the profession to be attractive to people for whom a particular level of moral reasoning predominates, and from the training/socialization of professionals in the area. Although the study collected a wide range of demographic information about the participants, allowing for a later detailed analysis of the impact of demographic factors, the initial analysis presented here focuses on these issues.

The remainder of this paper is set out as follows. It reviews the literature on tax practitioners and ethics. It briefly examines the concept of cognitive moral or ethical reasoning, outlines Kohlberg's stage sequence theory, introduces Rest's DIT, and examines the applicability of this type of research to tax practitioners. It describes the research method and sets out the research propositions. It sets out and analyzes the findings from a survey carried out on tax practitioners and non-tax specialists in Ireland, and then concludes.

## **Ethics and Tax Practitioners: Review of the Literature**

Prior literature on tax practitioners falls into two main categories—that dealing with endogenous variables which impact on the tax-reporting recommendations that tax practitioners make to their clients, and that identifying exogenous variables. The common context for this type of research is that of tax practitioner aggressiveness—that is, the extent to which a tax practitioner may be willing to stretch the law, in breach of its spirit if not its letter, in devising complex schemes to benefit clients, “taking on” a Revenue authority, etc.—and the factors which might influence this. In more recent years, this type of activity has more explicitly attracted the label of ethics/morality, rather than aggressiveness (see Frecknall-Hughes and Moizer, 2004; Frecknall-Hughes, 2007).

Endogenous variables examined in the literature include:

- Years of experience (Kaplan et al., 1988; McGill, 1988; Ayres et al., 1989; Duncan, LaRue, and Reckers, 1989; Helleloid, 1989; Roberts and Cargile, 1993; Cuccia, 1994; Carnes et al., 1996a).
- Task experience (Duncan et al., 1989; Bonner and Lewis, 1990).
- Job title/position in the firm (Chow, Shields, and Whittenburg, 1989).
- Professional status (Ayres et al., 1989; Cuccia 1994).
- Age (Duncan et al., 1989).
- Gender (McGill, 1988; Ayres et al., 1989; Sanders and Wyndelts, 1989; Roberts and Cargile, 1993; Cuccia, 1994).
- Tax practitioners' risk preference and inherent aggressiveness (Milliron, 1988; Milliron and Toy, 1988; Carnes et al., 1996a).

These studies relate mostly to research undertaken in the U.S. and pre-date the greater awareness of ethical issues following the Enron and KPMG scandals. Significantly, however, each also tends to examine only a few variables using different instruments/methods and includes issues of education and socialization implicitly rather than explicitly.

However, while ethics have been identified as a significant variable influencing tax practitioners (Milliron, 1988), and some studies have identified the particular ethical issues they face (see, in particular, Marshall, Armstrong, and Smith, 1998 in Australia; and Yetmar, Cooper, and Frank, 1998 in the United States), to date, little work has been done to investigate the manner in which tax practitioners approach ethical dilemmas.

Very many studies (LaRue and Reckers, 1989; Duncan et al., 1989; Reckers, Sanders, and Wyndelts, 1991; Pei, Reckers, and Wyndelts, 1992; Newberry, Reckers, and Wyndelts, 1993; Bandy, Betancourt, and Kelliher, 1994; Schisler, 1994; Burns and Kiecker, 1995; Carnes et al., 1996a, 1996b; Cruz, Shafer, and Strawser, 2000; and Schmidt, 2001) use hypothetical cases or scenarios put before tax practitioners to discover whether they would give the same advice or recommend the same treatment when presented with the same facts. Often, a key element is to determine which factors affect tax practitioner aggressiveness. A similar study by Kaplan et al. (1988) uses a different approach—that of cognitive theory—to examine tax practitioners' work. This builds on the theories of knowledge and experience building developed in the social cognition literature by, for example, Abelson, 1976;

Gibbins, 1984; and Waller and Felix Jr., 1984. The basic hypotheses, generally supported by their empirical findings, are that:

- Recent outcome information will influence the reporting recommendations of tax practitioners; and
- The amount of tax experience interacts with situational economic variables to influence the reporting recommendations of tax practitioners.

Knowledge will be acquired from:

“...the classroom, continuing education programs, technical bulletins, or professional journals, etc. Thus, when dealing in unambiguous areas, technical knowledge is of foremost importance, and it need not be related to the longevity of professional service (i.e., experience) or the uniqueness of recent experiences.”

Kaplan et al., 1988, p. 429

Where situations are ambiguous, however, Kaplan et al. (1988) find that the tax practitioner must take into account not only the technical knowledge required, but also the factual situation of the taxpayer, and the broader environment of the taxpayer and the tax system. In other words, he or she will utilize knowledge gained through experience of the institutional characteristics of the tax system and a learned approach of how to interact with representatives from the tax authority. Some of the knowledge may come from the classroom, but the preponderance will derive from varied, professional day-to-day experience, including dealings with the tax authority (Kaplan et al., 1988, p. 429).

The tax practitioner will develop “theories about the way things work” (Waller and Felix Jr., 1984, cited by Kaplan et al., 1988, p. 429), which will help form the professional’s cognitive judgment processes. These may take many years to develop. The input of experience into the decision processes of tax practitioners is not often examined, though LaRue and Reckers (1989, p. 48) find that “experience also may be a vital consideration in research among tax professionals.” Pei et al. (1992) comment that experience affects the way tax professionals deal with tax authorities: the more experienced are capable of understanding an authority’s requirements and will be inclined to present information in a manner more likely to generate fewer queries than the less experienced, who might be prone to consider client preference above all else.

In addition to the endogenous variables above, we can identify some of the factors that make the tax environment particularly problematic from an ethical perspective. These relate to the business-specific environment in which the tax practitioner operates, and sometimes overlap a little.

Exogenous variables identified include:

- Client payment status and fee pressure (Duncan et al., 1989; Sanders and Wyndelts, 1989; Schisler, 1994).
- Client tax aggressiveness (Roark, 1985; Kaplan et al., 1988; Milliron, 1988; Duncan et al., 1989; Helleloid, 1989).
- The importance of the client and competition to retain or attract clients (Lewis, 1985; McGill, 1988; Reckers et al., 1991; Bandy et al., 1994; Yetmar et al., 1998).
- Tax practitioner penalties (Jackson and Milliron, 1986; Reckers et al., 1991).
- Taxing authority audit probabilities (Kaplan et al., 1988; Duncan et al., 1989; Hite and McGill, 1992; Cruz et al., 2000).
- Exposure to tax authority rules and regulations in the working environment (Kaplan et al., 1988; Duncan et al., 1989).
- The degree of ambiguity of the tax issue and tax law (McGill, 1988; Milliron, 1988; Beck and Jung, 1989; Klepper and Nagin, 1989a, 1989b; Scotchmer, 1989; Brody and Masselli, 1996; Carnes et al., 1996a; Hume, Larkins, and Iyer, 1999).
- Multiplicity of stakeholders—not only clients, but the Revenue authority, fellow professionals in the same firm in different departments, professional bodies, etc. For an internal tax department in, say, a multinational, these would include shareholders, employees, customers, suppliers, regulatory authorities (including the Revenue authority), trade unions, etc. Stakeholders will have expectations which may be incompatible and impossible to satisfy simultaneously.
- Pressures of running a professional practice as a business, including managing junior staff, varied client portfolios, etc. (Lewis, 1985; Yetmar et al., 1998), and stress associated with dealing with large sums of money, allocating scarce or competing resources to deal with client needs (Weick, 1983; Yetmar and Eastman, 2000).

- Public expectation of a high level of technical competence commensurate with the privilege of self-regulation (Yetmar et al., 1998).

The situation in which tax practitioners find themselves is well expressed by Dox (1992, p. 71):

“Today’s tax practitioner must be an agile tightrope walker, able to balance a host of divergent demands. Maintaining one’s equilibrium is indeed difficult as a clamor of voices shout conflicting commands...In light of this obstacle-laden course, contemporary tax practitioners are bound to encounter ethical dilemmas as they attempt to cross this often obscure pathway”.

In research which examines the ethical reasoning process of tax practitioners, therefore, it is necessary to use a research instrument/method capable of assessing the interaction between and impact of the endogenous variables relating to the individual practitioner and the business-specific exogenous variables relating to the environment in which he or she operates. The DIT, derived from moral psychology research, provides such a research instrument, as is discussed in the next section.

### **Cognitive Ethical Reasoning and the Defining Issues Test (DIT)**

Cognitive developmental psychologists believe that, before an individual reaches a decision about how and whether to behave ethically in a specific situation, ethical or moral reasoning takes place at a cognitive level.<sup>2</sup> The psychology of moral reasoning aims to understand how people think about moral dilemmas and the processes they use in approaching them. It is concerned with the state of mind of the decision maker, how he or she defines the ethical dilemma being faced, and the concepts of fairness that the decision maker applies to the decision (Kohlberg, 1973; Rest, 1979b). The processes used by individuals to reason ethically alter over time, and there

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<sup>2</sup> Ponemon and Gabhart (1990) issue an important warning, which it might be timely to note at this point. They stress that, in the area of cognitive moral psychology, it is crucial to differentiate the meaning of “moral” and “ethical” from the traditional dictionary definition as representative of ideal behavior in a philosophical sense. In the context of cognitive moral psychology, morality is concerned with how individuals cooperate and coordinate their activities in the service of furthering human welfare, and how they adjudicate conflicts among individual interests (Rest, 1986a, p. 3). The terms “morality” and “ethics” are used interchangeably in the literature on the psychology of moral reasoning (Rest, 1994), and we will follow this practice throughout this paper. Various authors have proposed distinctions, but there does not seem to be one, generally accepted distinction.

is empirical evidence to support the contention that moral reasoning ability develops sequentially (Kohlberg, 1973; Rest, 1979a).

### **Kohlberg's Stage Sequence Theory**

Kohlberg (1969) developed a model of ethical cognition based on interview studies in which participants responded in an open-ended way to ethical dilemmas. His stage sequence theory is based on concepts of social cooperation and justice. It sets out three developmental levels. Individuals move upward through these three levels, beginning at the "pre-conventional morality" level, onwards to the "conventional morality" level, sometimes reaching the final and highest level known as "post-conventional morality." Within each of the three levels there are two developmental steps, resulting in a total of six stages. The second stage in each level is a more advanced and organized form of the first. Each stage in Kohlberg's model is considered as qualitatively higher, both cognitively and ethically. These six stages of ethical development determine the level of ethical reasoning used by individuals in distinguishing right from wrong actions. The ethical reasoning level of individuals, therefore, helps to determine how they will behave when faced with an ethical dilemma.

### **Rest's DIT**

Rest developed the DIT in 1979 (Rest, 1979a) using Kohlberg's cognitive development theory as a basis. The DIT is a self-administered, multiple-choice questionnaire, making use of the same ethical dilemmas used by Kohlberg in his original analysis (for example, "Heinz and the Drug," see Appendix A). Rest (1979b) developed the items for the questionnaire based on an interpretation of the stages in Kohlberg's stage sequence theory (see Table 1).

Although Kohlberg contended that, at any point in time, an individual would be at one of the six levels of ethical development, Rest posits that, while one stage might dominate an individual's reasoning, he or she is never simply at one stage of cognition. Rest, therefore, views ethical development as a shifting distribution of responses from lower levels on the stage sequence to higher levels. As an example, an individual may reason predominantly at stage four but also utilize some stage three and five reasoning. As ethical development takes place, he or she will reduce his or her reliance on stage three reasoning and increase reliance on stage five. The DIT, therefore, assumes that a person can operate at many stages at once,

**Table 1: Six stages of moral reasoning\***

<b>Pre-conventional:</b> Focuses on the individual.	Stage one	The morality of obedience: do what you are told.
	Stage two	The morality of instrumental egoism and simple exchange: let's make a deal.
<b>Conventional:</b> Focuses on the group and relationships.	Stage three	The morality of interpersonal concordance: be considerate, nice and kind: you'll make friends.
	Stage four	The morality of law and duty to the social order: everyone in society is obligated to and protected by the law.
<b>Post-conventional:</b> Focuses on the inner self and personally held principles.	Stage five	The morality of consensus-building procedures: you are obligated by the arrangements that are agreed to by due process procedures.
	Stage six	The morality of non-arbitrary social cooperation: morality is defined by how rational and impartial people would ideally organise cooperation.

\*Adapted from Rest (1994).

and, rather than attempting to assess the stage to which a person “belongs,” it instead measures the comprehension and preference for the principled level of reasoning (i.e., reasoning at stages five and six) (Rest, Bebeau, and Thoma, 1999).

Participants taking the DIT are presented with either six (long-form DIT) or three (short-form DIT) ethical dilemmas stated in third person form.<sup>3</sup> The dilemmas are presented as narratives describing the circumstances of the third party who is faced with making a decision on how to act in the scenario. After reviewing the dilemmas, participants choose what the actor should do in the circumstances from three options offered: take the action, do not take the action, or “cannot decide.” They are then asked to rate the importance of 12 considerations relating to the particular dilemma, indicating how important each is (in his or her opinion) in making the decision described in the scenario, using a five-level scale (great importance, much importance, some, little, or no importance). The 12 statements were constructed by Rest to include considerations that would be prevalent at particular stages of ethical judgment development in each situation. Once the 12 items have been rated, the participant is asked to select the four items that he or she considers to be of most importance to the decision and to rank

<sup>3</sup> The complete version of the DIT comprises six dilemmas. These are: (i) Heinz and the Drug: examines whether Heinz should steal a drug that might save the life of his wife who is dying from cancer; (ii) Student Take-Over: examines university students' freedom of speech and their right to protest; (iii) Escaped Prisoner: examines whether a man should pay for a past crime after living eight years of a virtuous existence that contributed to the well-being of the local community; (iv) The Doctor's Dilemma: examines the issue of euthanasia; (v) Webster: examines discrimination against minorities; and (vi) Newspaper: examines freedom of speech as it relates to the press. The short version of the DIT contains only three of these dilemmas (Heinz, Prisoner, and Newspaper stories).



these in order of importance. The first of the DIT scenarios, "Heinz and the Drug," is set out in Appendix A as an example.

In scoring the DIT, points are allocated to the considerations chosen as the four most important in each scenario. Four points are given for the most important through to one point for the least important. These points are assigned to the stage of ethical reasoning which that consideration represents, thus producing a distribution of responses by level which provide an overview of the range of stages involved in that participant's ethical reasoning. The points corresponding to the highest modes of ethical reasoning (stages five and six) are used to construct a single measure known as the "P" score (standing for "principled moral thinking") for each participant (Rest, 1994). The P score measures the percentage of stages five and six responses made by an individual for the entire three or six cases. Results of the P scores are expressed as a continuum from 0 to 95 (it cannot reach 100 owing to the fact that, on three stories, there is no fourth possible principled item from which to choose). Since the Rest (1979b) model is developmental and sequential, a higher P score implies a lower percentage of reasoning at lower levels. Thus, the P score measures the percentage of a participant's thinking at a principled level.

Based on hundreds of studies carried out in the United States, Rest and Narvaez (1998) report that junior high students generally average P scores in the 20s, senior high students in the 30s, college students in the 40s, graduate students in the 50s, and moral philosophers in the 60s. More specifically, Rest (1990a, p. ii) reports the following group averages, as shown in Table 2.

**Table 2: Group Averages for P scores\***

DIT P score	Group
65.2	Moral philosophy and political science doctoral students
59.8	Seminarians in a liberal Protestant seminary
52.2	Advanced law students
49.5	Practicing medical physicians
42.3	Average college student
40.0	Average of adults in general
31.8	Average senior high student
21.9	Average junior high student
18.9	Institutionalized delinquent boys, 16-years-old

From Rest (1990, p. ii).

It is hard to say whether such averages would be obtained today, as anecdotal evidence suggests that moral standards, especially in financial/business areas, have declined.

### **The Application of the DIT to Tax Practitioners**

The DIT has been used in numerous studies to investigate the impact of different variables on the ethical reasoning of accountants, such as age (Ponemon and Gabhart, 1993; Etherington and Hill, 1998); gender (Jones and Hildebeitel, 1995; Eynon, Hill, and Stevens, 1997; Etherington and Hill, 1998); ethical intervention, that is, undertaking ethics courses in college (St. Pierre, Nelson, and Gabbin, 1990; Hildebeitel and Jones, 1992; Armstrong, 1993; Ponemon and Gabhart, 1993; Shaub, 1994; Bay and Greenberg, 2001); and locus of control (Tsui and Gul, 1996).

Many empirical studies using the DIT suggest a deficiency in the development of the moral reasoning abilities of accounting students and accountants, given their age and education (Armstrong, 1987; Ponemon, 1990, 1992; Arnold and Ponemon, 1991; Lampe and Finn, 1992; Shaub, 1994; Sweeney, 1995; Fisher and Ott, 1996; Bernardi and Arnold, 1997). Ponemon (1992) studied 180 members of the American Institute of Certified Public Accountants (CPAs) and found an average score of 38.1, which is lower than the P scores of adults in general (which Rest 1990a, reports as being 40). Etherington and Hill (1998) report an average P score of 39.3 for 468 randomly sampled certified management accountants in America. Ponemon and Gabhart (1993) and Shaub (1994) find P scores of 40.0 ( $n = 133$ ) and 41.3 ( $n = 207$ ) for auditors at, what were at the time, Big Six firms, which are more comparable with the average reported P score for adults in general but are still lower than the average reported P scores for college students (Eynon et al., 1997).

Tax falls within the business domain and interacts significantly with accounting. Tax practitioners are often qualified accountants and may carry out both accounting and tax work. However, it has been recognized that one of the deficiencies of ethics research in accounting has been the failure to separate the accounting profession into major functional areas when analyzing ethical issues (Marshall et al., 1998). Four separate and distinct functions within the broader profession were identified by Schweikart (1992, cited by Marshall et al., 1998). The four divisions are: (1) external reporting and auditing (financial accounting); (2) selection of information

for presentation and use of the information for internal business decisions (management accounting); (3) insolvency and reconstructions; and (4) taxation. It is vitally important to realize that each of these areas may be served by different types of accountants with their own distinctive ethical dilemmas (Marshall et al., 1998). Marshall et al. (1998) observe that, in the area of taxation, the role of the practitioner ranges from that of an accountant concerned predominantly with the preparation of annual income tax returns to that of a quasi-legal adviser.

Therefore, while ethical reasoning research on accountants in general may inform the study of the ethical reasoning of tax practitioners, it would not be prudent to assume that the findings are generalizable, and research targeted at examining the ethical reasoning of tax practitioners as a unique and distinct group is merited. Indeed, solicitors are often found working as tax practitioners, and it is argued that the literature pertaining to accountants and the DIT cannot be presumed *prima facie* to be applicable to them.

While Kohlberg's theory on moral reasoning and Rest's DIT have never been used to examine tax practitioners, some work has examined the effect of ethical reasoning on tax evasion intentions of taxpayers.

Kaplan, Newberry, and Reckers (1997, p. 41) found that tax evasion intentions are significantly lower for those taxpayers who utilize high moral reasoning in their decisionmaking. Fisher (1997) also employed the DIT to examine taxpayer reasoning. He designed an adapted DIT using tax dilemmas faced by taxpayers and compared the taxpayers' P scores on Rest's original DIT to taxpayers' T-scores (measuring moral reasoning using the tax-based DIT). Reasoning about taxpaying situations was found to be less advanced than reasoning about broader social dilemmas.

The importance of tax practitioners as a tax compliance variable has been highlighted above in the first part of this paper. The employment of the DIT as a research tool for examining the ethical reasoning of taxpayers making compliance decisions adds weight to the justification for its utilization in the investigation of tax practitioners, who have such a significant influence on taxpayers. This study's assessment of the moral reasoning of tax practitioners, a group who have hitherto failed to be examined in this manner, will therefore make a significant contribution to the development of academic knowledge in this field.

The standard DIT cannot give us the whole picture, however. It can give us an indication of the preferred level of moral reasoning for tax practitioners versus that in the general population, but cannot explore the issues of context and training/socialization discussed in the introduction. To address these issues, our study needed to develop an instrument

related to the tax domain, and this is discussed as part of our methodology, to which we now turn.

## **Research Propositions and Methodology**

### **Development of Research Propositions**

As indicated above, the administration of a standard DIT instrument to both groups of participants in this study allows us to test whether practitioners and lay people differ significantly in their responses to social dilemmas. This allows the possibility that tax work attracts people for whom a particular level of moral reasoning predominates to be taken into account in our analysis.

The DIT is “a broad, general measure of moral reasoning” (Fisher, 1997, p. 143), acceptable in dealing with personal issues in a social context (Fraedrich, Thorne, and Ferrell, 1994). However, concern has been expressed that it does not, and cannot, fairly represent the reasoning used when facing ethical dilemmas in a business context (see, for example, Elm and Nichols, 1993; Fraedrich et al., 1994; Trevino, 1986, 1992; Weber, 1990; Welton, Lagrone, and Davis, 1994; Dellaportas, Cooper, and Leung, 2006). These concerns have led to the development, in a number of areas, of instruments based on the DIT, but containing context-specific scenarios, a route we also follow here.<sup>4</sup>

There are several mechanisms by which different behavior in a business versus social context might arise. Jackall (1988) suggests, for example, that what is ethically acceptable at work may not be acceptable at home or outside the corporation, and that findings that managers use lower-level ethical reasoning to resolve business problems is consistent with an understanding of human behavior based on cultural anthropology, where individuals play different roles that allow them to accept different values, norms, and behaviors in different life domains (e.g., home and work). This suggests that socialization at work may affect attitudes to particular issues. Training may also be important, in that legislation is not always clear on how situations should be dealt with, sometimes leaving a range of options (Hume et al., 1999). Awareness of this ambiguity may make it easier for practitioners to decide on the basis of other considerations (such as benefit to someone in

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<sup>4</sup> For example, in business-related areas, there are: accounting-specific tests (Welton et al., 1994; Thorne, 2000, 2001); broad business dilemmas and auditing scenarios (Weber, 1991; Massey, 2002); management vignettes (Loviscky, Trevino, and Jacobs, 2007); and a test of tax compliance (Fisher, 1997).

the role of client in the scenario, which would imply a lower level of moral reasoning than considering society as a whole), while an inexperienced person might have to reason from first principles. Finally, characteristics of the tax context may affect individuals regardless of professional involvement (e.g., the anonymity of those who are losers if tax is not paid, perhaps leading to perceptions of victimless crime in this field). Our aim here is to test for these effects.

Evidence from studies investigating the moral reasoning of accountants finds that their ethical reasoning in work-related situations is lower than the reasoning they are capable of in a broader social context (Thorne, 2001). Fisher (1997) also found that the reasoning of taxpayers about taxpaying situations was less advanced than reasoning about broader social dilemmas. This would support a prediction that both practitioners and lay people in the study would follow this pattern owing to the characteristics of the tax context, and show lower levels of moral reasoning in tax scenarios than in the standard social dilemmas of the DIT. However, as tax practitioners receive extensive technical tax training and may also be bound by codes of conduct of a professional body (see earlier), it is also possible that these factors may lead practitioners to show a higher degree of moral reasoning in a professional context than in a broad social context, and that obeying the law would be of special significance.

Finally, we can make some initial investigations into the impact of socialization versus training by comparing practitioners from different contexts. Bernardi and Arnold (1997, p. 659) observe that most of the researchers on the ethical reasoning of accountants base their findings on subjects from only one or two of what are now the Big Four accounting firms, assuming that the results are generalizable across all accounting firms. The authors suggest that differences in moral development could occur as result of a socialization effect. Other reasons for the differences in moral development, cited by Ponemon (1992), include differences in work practices, training programs, or the level of moral development of supervisors. Bernardi & Arnold (1997) conclude that there is a need to include subjects from several firms in research designs, and we concur with this approach.

For the purposes of this study, tax practices were partitioned into five size categories (Big Four accounting firms, international accounting firms—i.e., firms with offices in multiple jurisdictions but not one of the Big 4, multi-office national firms, single office national firms, and sole practitioners), and research participants were sourced from each. Tax practitioners working in industry, in legal firms, and with the Irish Revenue authority were also included in this study.

## **Research Instrument**

Using the DIT as a blueprint, a context-specific test was developed which aims to measure the ethical reasoning ability of tax practitioners in their working environment (Doyle, Frecknall-Hughes, and Summers, 2009), hereafter referred to as the TPDIT. In the TPDIT, the ethical reasoning levels of items for consideration were matched to those of the DIT to facilitate comparisons and reduce the chances of any differences found in the study arising from this effect. Our development work provided a sufficient range of potential considerations to allow this to be done without risking the introduction of contrived items that would not seem realistic, particularly to more experienced participants.

The newly developed three scenario TPDIT was combined with the short-form, three scenario version of the DIT resulting in a new six scenario test containing three social context dilemmas and three tax context dilemmas. In order to combat the issue of order effects, a counter-balanced design was used with one version of the questionnaire having the DIT scenarios first and the other, the tax scenarios. Both versions of the questionnaire included demographic questions at the end. Responses were returned anonymously, with participants also having the option to return a form asking for a copy of a research report based on the study but being assured that any contact details for this would be stored separately from the questionnaire responses.

## **Dissemination of the Research Instrument**

The TPDIT was administered to 649 individuals in Ireland in early 2009 using a combination of random, convenience, and snowball sampling techniques. Controlling for order effects and gathering participant-relevant demographic data resulted in four versions of the TPDIT (TA1, TA2, NS1, and NS2).

The TA versions of the TPDIT were administered to 343 practitioners working in a range of tax related roles in Ireland. The only difference between TA1 and TA2 was the order in which the scenarios were presented to participants (TA1 presented the social context scenarios first, and TA2 presented the tax scenarios first).

The two NS versions of the TPDIT were disseminated to 306 Irish non-tax specialists or “ordinary people” who had no professional involvement in taxation. NS1 presented the DIT scenarios first and NS2, the tax scenarios.

Each of the 649 participants was given an envelope containing (a) a covering letter outlining what the research study was about; (b) a research instrument (TA1, TA2, NS1, or NS2 as appropriate) containing detailed instructions, three social context scenarios and three tax context scenarios with questions following each one, and a final page gathering demographic data; (c) a separate page requesting a copy of the final research report; and (d) a stamped addressed envelope. Completing the research instrument took between 30 minutes and 1 hour.

To date, there has been a 34 percent response rate from tax practitioners (115 completed questionnaires) and a 44 percent response rate from non-tax specialists (136 completed questionnaires). Five of the non-specialist instruments had to be discarded as a result of being incorrectly completed. A further 29 instruments had to be discarded owing to the scenario-based questions not being fully completed.

The checks on subject reliability detailed in the DIT manual (Rest, 1986b) resulted in 17 percent of instruments being eliminated (16 percent for practitioners and 18 percent for non-specialists).<sup>5</sup> Rest (1990b, p. 15) indicates that the invalidation of tests on the basis of consistency checks is in the 2 percent-15 percent range. Our findings are consistent with this ( $p > 0.1$ ). This gave a sample of 180 instruments for analysis (tax practitioners  $n = 80$  and non-specialist  $n = 100$ ).

### **Profile of Tax Practitioners Participants**

The gender analysis of the tax practitioner sample was fairly even, with 45 percent of participants being male and 55 percent female. Participants' ages ranged from 20 years to 66 years, the average being 35. Practitioner participants had a minimum of one year of tax experience, with the maximum being 38 years and the mean 12. The analysis of where the participants worked shows considerable variety and is set out in Table 3.

Participants held a wide variety of positions within their employer entities, ranging from tax trainee to partner. This is set out in Table 4. Of the tax practitioner participants, 78 percent had at least a Bachelor's degree, with many having Master's level academic qualifications (26 percent). The analysis of education level is set out in Table 5.

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<sup>5</sup> These rejection rates are not significantly different, chi-squared test ( $\chi^2 = 0.190$ ,  $df=1$ ,  $p > 0.1$ ).

**Table 3: Category of Firm**

Firm type	Frequency	Percent
Big Four Accounting Firm	32	40
International Accounting Firm	6	7.5
Multioffice Accounting Firm	8	10
Single Office Accounting Firm	3	3.8
Sole Practitioner	2	2.5
Legal Firm	9	11.2
Working in Industry	7	8.8
Working with the Revenue Authority	10	12.5
Working in Education	2	2.5
Missing variable	1	1.2
<b>Total</b>	<b>80</b>	<b>100</b>

**Table 4: Position in the Firm/Company**

	Frequency	Percent
Trainee	16	20
Senior	4	5
Assistant Manager	6	7.5
Manager	16	20
Senior Manager	8	10
Director	11	13.8
Partner	8	10
Other	10	12.5
Missing	1	1.2
<b>Total</b>	<b>80</b>	<b>100</b>

### Profile of Non-specialist Participants

Of the non-tax specialist participants, 40 were male (40 percent), while 60 were female (60 percent). Ages ranged from 20 years to 71 years, the average being 40. Of the non-tax specialist participants, 41 percent worked in the public sector, 36 percent in the private sector, and 23 percent were not currently working (most were either students or retired individuals). The majority of the non-tax specialist group indicated that they had never



**Table 5: Highest Level Academic Qualification**

	<b>Tax Practitioners</b>	<b>Nonspecialist</b>
No academic qualifications	0%	1%
16+ (Junior Certificate)	1%	2%
18+ (Leaving Certificate)	13%	13%
Diploma	8%	5%
Bachelor's Degree	50%	30%
Master's Degree	26%	36%
Doctorate	1%	10%
Missing variable	1%	3%
<b>Total</b>	100%	100%

had any experience in tax. The experiences of the others were confined to personal tax returns or VAT returns in a work-related context. The majority of this group had at least a primary degree, and many also had Master's level academic qualifications (see Table 5 above).

## Results

All analysis has been done using SPSS. This includes all checks for consistency, calculation of P scores, and all statistical analysis. Syntax was specially written by the authors to allow consistency checks and calculation of P scores. As far as we know, SPSS has not been used previously to do this.

P Scores were calculated for both the DIT and TPDIT, being named PSCOREDIT and PSCORETAX, respectively. Prior to this, analysis checks for order effects were conducted. No effects were found (MANOVA on both variables,  $p > 0.1$  in both cases; MANOVA with a dummy variable identifying tax practitioners, TAXPRACTITIONER, indicated no significant interaction  $p > 0.1$ ). Order of scenarios was, therefore, not considered further in the analysis.

Insights into the main issues were obtained using a GLM repeated measures model with TAXPRACTITIONER as a between-subjects factor, and the results are shown in Table 6. The intuition of our results is clear in Figure 1. CONTEXT, the within-subjects measure reflecting the two P Scores PSCOREDIT and PSCORETAX, is significant ( $p < 0.01$ ) as is TAXPRACTITIONER (between-subjects measure,  $p < 0.05$ ), and there

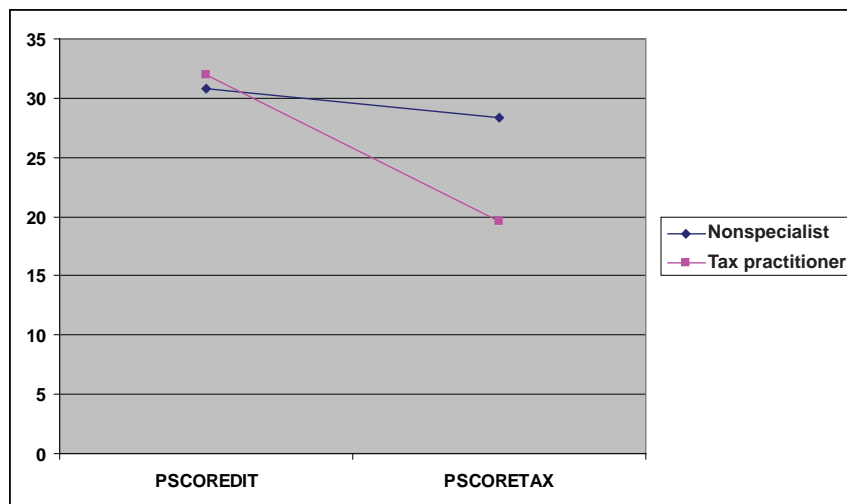
is a significant interaction ( $p < 0.01$ ). The marginal means suggest that PSCOREDIT and PSCORETAX are significantly different, but that this effect is driven by the tax practitioners, giving rise to the significant interaction. Separate GLMs for practitioners and non-specialists confirmed

**Table 6: GLM within-subjects results**

	Type III Sum of Squares	df	Mean Square	F	Sig.
<b>Within-subjects effects</b>					
CONTEXT	4867.556	1	4867.556	25.525	.000***
CONTEXT * TAXPRACTITIONER	2163.358	1	2163.358	11.344	.001***
<b>Between-subjects effect</b>					
TAXPRACTITIONER	1272.321	1	1272.321	4.578	.034**

Significance levels: \*\*\*=.01, \*\*=.05.

**Figure 1: Comparisons of PSCOREDIT and PSCORETAX between groups of participants (marginal means)**



this, with no significant effect of CONTEXT for non-practitioners ( $p>0.1$  for non-practitioners,  $p<0.01$  for practitioners). A MANOVA on both scores with TAXPRACTITIONER as a between-subjects effect confirmed that TAXPRACTITIONER is not significant for PSCOREDIT ( $p>0.1$  for PSCOREDIT,  $p<0.01$  for PSCORETAX).

The results for PSCOREDIT indicate that any impact of tax specialism on moral reasoning is not due to a difference in moral reasoning level as measured in a general social context. Any effects are context-related rather than practitioners being significantly different from non-specialists in a more general sense.

Practitioners showed a significantly lower level of moral reasoning in the tax context than in the general social context, while non-specialists did not, indicating that training/socialization in the work context underlies the difference, rather than arising from something intrinsically perceived as different about tax by anyone.

Checks were made on gender, age, and level of education (university level or not) between groups to ensure that these results did not arise from significant differences on these variables. The test for age was significant so that the mixed model was rerun with age as a covariate. Age itself was not significant, but its presence in the model strengthened the pattern of results described above.

To check the effects of socialization, rather than just knowledge, comparisons were made between respondents from Big Four firms and other practitioners, other than those working for the Revenue authority. These latter were excluded because their socialization is more likely to support a societal view of dilemmas than a client view. This analysis showed that there were no significant differences between these groups of practitioners. More detailed analysis will require larger numbers in some categories, and will be undertaken at a later stage.

Finally, the point made above in relation to those working for the Revenue was investigated further, although the size of this group (10) precluded the sophisticated statistical testing which would be required to resolve the issue. Intriguingly, this investigation indicated that the PSCORETAX for Revenue officials was much nearer to their PSCOREDIT than for non-revenue professionals (33 in PSCOREDIT versus 19 in PSCORETAX for non-revenue practitioners, versus 29 in PSCOREDIT versus 25 in PSCORETAX for Revenue practitioners). If confirmed as a significant difference on a larger sample, this would suggest socialization in the client environment is driving the pattern of results for practitioners.

## **Discussion and Provisional Conclusions**

While a significant amount of analysis remains to be done, the results thus far allow us to offer some provisional thoughts and conclusions. We have a usable response rate in absolute and percentage terms, which is excellent in tax research terms (see Al-Eranyi, Alam, and Akhter, 1990; Borkowski, 1997; Cravens, 1997). There is no effect on our results from the order of different scenarios in the research instruments themselves, and we have a representative gender response.

The initial P scores indicate that, in comparing tax practitioners and non-specialists, it is the tax context where moral reasoning differs. Tax practitioners reveal a significantly lower level of moral reasoning in the tax context than in the general social context, being possibly driven by a regard for legal rules. To confirm this, an analysis of the different response stages is required. These results do not arise from differences in gender, age, or level of education between the groups, nor does the type of firm (Big Four or other) for which practitioners work affect the pattern of results. Although more work remains to be done here, it appears that the tax environment (private practice as opposed to public sector) could reveal some interesting differences.

These results are consistent with Thorne (2001) and Fisher (1997), who also found a significant difference between the P scores of subjects in a broad social context and in a work-related situation. As mentioned above, however, in our study, this difference was not evident in the non-specialist group.

The P scores that have emerged from our preliminary analysis are interesting in themselves. The mean PSCOREDIT for both tax practitioners and non-specialists is quite low at 30.8 and 31.9, respectively. These scores equate with the ethical reasoning level of the average senior high student and are well below the level of adults in general and college students (Rest, 1990). These scores are also much lower than the average P score of accountants found in the studies mentioned above. The low scores of practitioners might be explained by the fact that they may have a predominantly law and order orientation, due to the fact that tax is based on legislation and case law, although, this fails to explain the level found in non-specialists.

In terms of the value of research such as this, there are several areas of potential use.

- Educators can use the information when designing ethics courses for tax practitioners (intervention type programs).

- The tax authority/government can use this information to dictate policy matters in the area of tax preparers. If the law and order approach used by tax practitioners to handle ethical dilemmas, then legislation will result in ethical standards being raised. If tax practitioners use a principled approach, then principle-based guidelines will be enough to influence behavior. This is of particular significance for countries like the U.K., where the issue of principled-based, as opposed to rules-based legislation, is a hotly debated topic.
- The profession itself needs to understand its members' approaches to ethical dilemmas in order to govern effectively. The newly developed TPDIT might be employed to test the ethical reasoning of tax practitioners to assist the profession in raising its ethical standards through education and training. It might also be useful as a recruitment tool.
- Tax practitioners need to be aware of how they reason in order to be responsible for their own ethical development.

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## Appendix A

### DIT Scenario One: Heinz and the Drug (Rest, 1986a)<sup>6</sup>

(The indication of the stage of moral reasoning represented by each item for consideration below is not present in the instrument used with participants)

In a small European town, a woman was near death from a rare kind of cancer. There was one drug that doctors thought might save her. It was a form of radium that a pharmacist in the same town had recently discovered. The drug was expensive to make, but the pharmacist was charging ten times what the drug cost to make. He paid €200 for the radium and charged €2,000 for a small dose of the drug. The sick woman's husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about €1,000, which is half of what it cost. He told the pharmacist that his wife was dying and asked him to sell it cheaper or let him pay later, but the pharmacist said, "No. I discovered the drug, and I'm going to make money from it". So, Heinz got desperate and began to think about breaking into the man's store to steal the drug for his wife.

Should Heinz steal the drug?

Should steal it ☐ Can't decide ☐ Should not steal it ☐

Rate the following 12 items in terms of importance	Great	Much	Some	Little	No
1. Whether a community's laws are going to be upheld. (Stage 4)					
2. Isn't it only natural for a loving husband to care so much for his wife that he'd steal? (Stage 3)					
3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help? (Stage 2)					
4. Whether Heinz is a professional wrestler or has considerable influence with professional wrestlers. (M item)					
5. Whether Heinz is stealing for himself or doing this solely to help someone else. (Stage 3)					

<sup>6</sup> The Heinz scenario has been slightly altered from the original Rest (1986a) version in order to update the language slightly for an Irish jurisdiction context. The original dollar figure mentioned in the scenario has been changed to Euros, and the word "druggist" has been replaced by 'pharmacist.'

Rate the following 12 items in terms of importance	Great	Much	Some	Little	No
6. Whether the pharmacist's rights to his invention have to be respected. (Stage 4)					
7. Whether the essence of living is more encompassing than the termination of dying, socially and individually. (M item)					
8. What values are going to be the basis for governing how people act toward each other. (Stage 6)					
9. Whether the pharmacist is going to be allowed to hide behind a worthless law which only protects the rich anyway. (A item)					
10. Whether the law in this case is getting in the way of the most basic claim of any member of society. (Stage 5)					
11. Whether the pharmacist deserves to be robbed for being so greedy and cruel. (Stage 3).					
12. Would stealing in such a case bring about more total good for the whole society or not? (Stage 5)					

From the list of questions above, select the four most important:

Most important item	1	2	3	4	5	6	7	8	9	10	11	12
Second most important item	1	2	3	4	5	6	7	8	9	10	11	12
Third most important item	1	2	3	4	5	6	7	8	9	10	11	12
Fourth most important item	1	2	3	4	5	6	7	8	9	10	11	12

## Appendix B

### Tax-DIT Scenario One: Capital Allowances

Anne is a tax practitioner with an accounting firm. She is working on a capital allowances claim to benefit one of her firm's corporate clients that is in financial distress. Despite profitable trading, the client has suffered severe cashflow problems as a result of adverse economic conditions. The capital allowances claim relates to a new factory building and will significantly reduce taxable corporate profits (and, thus, the tax the client has to pay). To be eligible for capital allowances, the factory has to be in use at the end of the client's financial year. Without the reduction in tax from the capital allowances, it is unlikely that the company will survive, which will result in 5,000 employees losing their jobs.

It is now a month since the client's financial yearend, and Anne has asked the financial controller for documentary evidence that the factory was in use at the end of the financial year. The financial controller sends her a copy of the minutes of the latest directors' board meeting. The last item on the board minutes notes that the factory premises became fully operational on the last day of the financial year. However, Anne is convinced that this was not the case, as she drives past the factory every evening and it is clearly unoccupied. However, she also knows that the company will not survive if the capital allowances cannot be claimed. Should Anne file a tax return claiming capital allowances for the financial year?

She should ☐      Can't decide ☐      She shouldn't ☐

Rate the following 12 items in terms of importance	Great	Much	Some	Little	No
1. Would it be fair to all the taxpayers who have met the legal requirements to claim capital allowances if one client is permitted to claim allowances without meeting the criteria?					
2. What impact will the company's demise have on the accounting firm Anne works for?					
3. Under self-assessment, once Anne has the proper documentation on file, her position is covered regardless of whether the building is actually "in use."					



Rate the following 12 items in terms of importance	Great	Much	Some	Little	No
4. Whether Anne's notification juxtaposes immediate Revenue authority cognizant of the client's actions.					
5. Whether Anne and the financial controller are close friends.					
6. Isn't a tax practitioner required to file an accurate tax return?					
7. Aren't capital allowances the essence of alternative displacement?					
8. Which values best determine how tax practitioners should interact with their clients and engage with the tax legislation?					
9. Whether a tax system that includes random and meaningless definitions ought to be completely abandoned.					
10. Whether the saving of 5,000 jobs will bring about the best result for society as a whole.					
11. Whether the firm's reputation will be damaged if the claim is subsequently challenged.					
12. Whether it is socially acceptable for management inadequacies to deprive employees of their opportunity to earn a living.					

From the list of questions above, select the four most important:

Most important item	1	2	3	4	5	6	7	8	9	10	11	12
Second most important item	1	2	3	4	5	6	7	8	9	10	11	12
Third most important item	1	2	3	4	5	6	7	8	9	10	11	12
Fourth most important item	1	2	3	4	5	6	7	8	9	10	11	12

# Taxpayer Value Model (TVM): What is it?

*Ben Shackelford, Internal Revenue Service,  
and Pete Webb, Pacific Consulting Group*

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The second report on development of the Taxpayer Assistance Blueprint described “the initiation of a customer service resource optimization model. This model is being developed to help the IRS make better decisions on which services to provide to taxpayers and which channels to use to provide those services within the budget resources for service programs.”<sup>1</sup> Ultimately named the Taxpayer Value Model (TVM), prototype development of this decision tool was completed in 2008. The TVM currently relies on the data set generated for the conjoint analysis conducted for the TAB Phase 2 report.<sup>2</sup> These data represent the most recent attempt to gauge, in a comprehensive manner, the preferences of taxpayers. Using these data, the TVM can bring the perspective of the taxpayer specifically, information on what service delivery options taxpayers want, into the taxpayer-service-related decisionmaking processes of the IRS.

As with any model, the TVM is only as good as the data it relies upon. Fortunately, the Taxpayer Value Model benefits from a data set developed specifically to gauge what taxpayers want from service. During development of the taxpayer assistance blueprint, conjoint analysis was used to gather an accurate estimate of taxpayer preference for service channels for a variety of service needs. Conjoint testing gathers information on participant choice behavior and provides a picture of what changes prompt switching behavior between choices. The conjoint method was chosen over more conventional survey methods because they often ask directly, “Which would you prefer?” generally resulting in a strong “status quo bias,” thus overstating preference for familiar options. Unlike most other methods, conjoint testing provides information about the context of the service experience, and then gauges how changes in the service context relate to changes in attitude.

To accomplish this, the conjoint method asks taxpayers to choose between different service scenarios in a specialized survey. Survey participants work through successive “choice tasks” and choose what types of service they would prefer to use to accomplish a service need described to them.

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<sup>1</sup> TAB Phase 2, p. 126.

<sup>2</sup> Shackelford (2007), *IRS Research Bulletin*, p. 241-260.

The choice made in each task is among “packages,” which consist of service channels described by attributes of service.

For this research, four attributes of the service experience were identified as of prime significance to taxpayers.<sup>3</sup> These attributes of service are access time, servicing time, hours of availability, and the likelihood of first contact resolution. Access was defined for survey participants as the time between beginning to seek service and when service delivery begins. Servicing time is that time consumed by actually getting the service they need. Hours of availability reflects the universe of opportunity to use a service channel. Finally, first contact resolution was described as the percentage chance that their service issue will be resolved during the first contact attempt.

Taxpayers choose between service options or packages defined by attributes of the service experience. These options are presented in a table like the one below (see Figure 1). For each table, the survey participant is asked to complete a choice task. In this instance, the participant will choose which channel he or she prefers to accomplish the assigned task, “Getting a Form or Publication.” As taxpayers accomplish successive choice tasks, their choices reveal their preferences for service channel and the attributes of service that make different channels (un)attractive to different taxpayers.

**Figure 1: Service Task: Getting a Form or Publication**

Choice Task 2				
IRS Tax Assistance Method	Phone and talk with a representative	Use IRS.gov and browse for information	Phone and use the automated menu	Visit TAC and talk with a representative
Access time	15 min.	5 min.	5 min.	60 min.
Servicing time	10 min.	15 min.	1 min.	15 min.
Hours of Availability	Regular business hours	24 hours, 7 days	24 hours, 7 days	Regular business hours
Percent first contact resolution	95%	75%	95%	95%
	First concept	Second concept	Third concept	Fourth concept

For this example, the preferred channel is shown in gray. Additional choice tasks, with the hypothetical respondent choice indicated in gray, show

<sup>3</sup> Conjoint 2 preparation work included three focus groups to define the attributes of service of importance to taxpayers. These focus groups were conducted with a diverse group of taxpayers in rural and urban settings to capture a wide spectrum of needs and perceptions.

**Figure 2: Service Task: Getting a Form or Publication**

Choice Task 3				
IRS Tax Assistance Method	Phone and talk with a representative	Use IRS.gov and browse for information	Phone and use the automated menu	Visit TAC and talk with a representative
Access time	15 min.	5 min.	5 min.	60 min.
Servicing time	10 min.	15 min.	1 min.	15 min.
Hours of Availability	Regular business hours	24 hours, 7 days	24 hours, 7 days	Regular business hours
Percent first contact resolution	85%	75%	95%	95%
	First concept	Second concept	Third concept	Fourth concept

how changing the attribute levels for the different service channels reveals the underlying channel preference structure of the respondent in terms of “tradeoffs” across the common service attributes.

Subsequent “choice tasks” allow the taxpayers to choose preferred service channel as the attributes of service options change. Resulting movement (or lack of movement) to other service options shows the importance of different attributes to each respondent. In this example, changing phone Access Time from 1 minute to 15 minutes in Choice Task 2 did not result in a change in service channel preference. Even with first contact resolu-

**Figure 3: Service Task: Getting a Form or Publication**

Choice Task 4				
IRS Tax Assistance Method	Phone and talk with a representative	Use IRS.gov and browse for information	Phone and use the automated menu	Visit TAC and talk with a representative
Access time	15 min.	5 min.	5 min.	60 min.
Servicing time	10 min.	15 min.	1 min.	15 min.
Hours of Availability	Regular business hours	24 hours, 7 days	24 hours, 7 days	Regular business hours
Percent first contact resolution	75%	75%	95%	95%
	First concept	Second concept	Third concept	Fourth concept

tion reduced to 85 percent, the taxpayer in this example still prefers phone assistance with a live representative (see Figure 2).

Only when first contact resolution is reduced to 75 percent for the phone does this taxpayer choose a different service channel (see Figure 3). Rotating different service needs, service channels, and attribute levels for runs made by conjoint participants through choice tasks provides a full data-set of taxpayer preferences.

A measure of value is then established for each respondent based on the underlying conjoint “utility levels” for each level of each attribute. This value metric is then averaged across all respondents in order to assess overall value to taxpayers of any individual channel performance levels (based on the four service delivery attributes) or of different channels taken in combination. This can be calculated for all taxpayers or for a wide variety of taxpayer segments with different demographic and filing characteristics.

The explanation above is intended mainly to convey the quality of the conjoint data set that the TVM depends on to generate estimates of taxpayer value. The data set used by the TVM is both specific to taxpayer preference and extensive. Results were obtained from over 2,200 taxpayers, each running through choice tasks to define service preferences for two different service needs. This large data set was required for development of a prototypical TVM dataset allowing sublevel analysis according to service need and taxpayer segment. The definition of service channels to show self-assist and live-assistance allows some flexibility of interpretation, and is based on differentiation between routine, transactional tasks and more complex, interactive tasks as developed in the TAB Phase 2 report.<sup>4</sup> Finally, the Conjoint Survey Sample was drawn using the only Web-based survey panel currently approved by the Office of Management and Budget (OMB), Knowledge Networks. To capture results representative of U.S. Census Demographics, Knowledge Networks uses random digit dialing for active member recruitment and provides Internet access to non-Internet users for its electronically administered surveys. Weighting procedures are used to assure that the survey sample is representative of the population of individual taxpayer households.

## **What Does the TVM Do?**

Offering a means to estimate the interaction among taxpayers, service needs, and channels, the TVM is described in the TAB Phase 2 report as a “simplified model of IRS service delivery options designed to address the following strategic questions:

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<sup>4</sup> See TAB Phase 2, p. 41–43, 113–115.

- Which service channel resource allocations will maximize taxpayer value?
- Which attributes (i.e., access time, response time, service time, first contact resolution) are most important to taxpayers?
- Where will improvements to service result in the greatest payoff to customers?”<sup>5</sup>

The TVM provides estimates of how the value placed in different service channels changes as those channels change. If, for example, service speeds up without any deterioration in quality, the TVM can show just how much taxpayers will value that change in the service environment. As such, the TVM is a suitable means of bringing taxpayer input into the decision process.

In keeping with the focus of the TAB, the TVM allows the taxpayer perspective to play a role in decisions impacting the service environment. Indeed, it offers the best way to involve taxpayer perspective in the decisionmaking process. Other possible alternatives—directly involving taxpayers, conducting a suite of research methods for each proposal, or relying on operational data to gauge taxpayer value for service alternatives—are costly, cumbersome, and subject to potentially damaging biases.

Direct participation of a representative sample of taxpayers in the planning and implementation processes of the IRS is not feasible. In addition to being cumbersome to include several hundred taxpayers in the planning and implementation processes of the IRS, there exists substantial burden of information to be mastered in order to provide informed input.<sup>6</sup> Indeed, the subject matter spans beyond the Tax Code (which is itself a formidable body of information) to include policy related to information technology, privacy, access, and operational procedures informed by decades of practice, and practical compromise.

Similarly, initiating and conducting new research for each proposed initiative or operational adjustment are not an attractive option. A full set of fresh research for each initiative or proposed change would likely require too much time and too many resources within the current operational environment. Conducting one-off research for decisionmaking about the creation and composition of taxpayer service is not feasible because of the length of time involved to conduct the appropriate amount of defensible,

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<sup>5</sup> TAB Phase 2, p. 126.

<sup>6</sup> At bare minimum, a representative sample would need to include the perspective of around 400 taxpayers to be statistically valid. If the perspectives of any subsets of taxpayers were valuable to the process, the number of involved taxpayers would expand considerably.

repeatable research, complete analysis, and render information useful to a decision. Indeed, the ever-shifting nature of information technology only increases the value of rapid but accurate customer feedback.

Finally, depending on operational data to infer that “taxpayers use that which they prefer” suggests that scope of service and performance are uniform across all channels when they are not. Habit is a strong determinant, and taxpayers may act upon that basis even if it means they are getting suboptimal service. The idea is not to play to habits which may include difficulty and inefficiency, but rather to shape a service environment that economically provides what taxpayers need in a manner they most prefer.

In addition to the time and resources required, and any inherent bias, analysis based exclusively on operational data would be largely channel-specific, and may not provide information that is directly comparable to other service delivery mechanisms. The objectives of enterprise-wide seamless taxpayer service would likely remain elusive. Because the TVM is rooted in taxpayer value as defined by the underlying attributes common to all service delivery methods, it permits comparison in uniform units within and across service channels.

Because it is based on a dataset where taxpayers trade off their choices for service based on changes in the service environment, the Taxpayer Value Model (TVM) can help predict the taxpayer value impact of resource decisions—both increases and decreases. Negative changes in one attribute of service provision may be offset by improvements in other attributes. For example, if an investment will result in changes where the servicing time for the taxpayer increases 10 percent, while the first contact resolution for the same task improves 5 percent, there might be an overall net gain in benefit.

The TVM can provide assessments of all taxpayer value or value according to specific segments of taxpayers, specific service needs, and/or specific service channels. For example, if an investment decision for IRS.gov would improve first contact resolution, the TVM can show the impact of this proposal on the service value perceived by taxpayers with incomes between \$36,000 and \$49,999 or the value perceived by all taxpayers.

The TVM is a measure created through direct feedback from taxpayers and is therefore less susceptible to biases resulting from precedent. For example, ways of providing service that, because of novelty or

circumstance, do not have much current infrastructure within the IRS can be weighed on an equal basis with traditional service situations enjoying substantial institutional support.

Finally, simplicity is a key benefit of TVM. The simplicity and transparency of the model can foster widespread use and promote widespread appreciation of taxpayer value. The model brings the power of research to the decision process by providing an estimate of taxpayer value expressed as a single number somewhere between 0 and 200.<sup>7</sup> Practically speaking, the estimates of taxpayer value resembling anything like the current or feasible service environment range between 50 and 150.

## Current Limitations

As discussed above, the strength of the TVM is that it relies on taxpayer perspective and brings that perspective, easily and efficiently, into the IRS business decision process. That said, it is important to recognize what the TVM does not currently do.

First, the method used to gather the data underlying the TVM shows changes in preference rather than changes in actual behavior. Conjoint shows what attributes of service are important to people based on how their choices for service change among service channels. If taxpayers act according to their preferences, then it is an accurate predictor of behavior. Indeed, recent research shows that, for taxpayers seeking IRS services, the biggest difference between preference and behavior is the widespread lack of awareness and experience with many of the alternatives.<sup>8</sup>

Second, like any model, the results generated by the TVM are only as good as the data put into the TVM. Though the data set on taxpayer preference within the model is quite robust, it is possible that the data estimates entered into the model for a prospective business case can skew results. The unavoidably speculative nature of estimating how changes in service process will impact service delivery will be both a necessity and a challenge regardless of the tools brought to the decision process. Use of an Analysis Template developed for the TVM will help minimize the introduction of error as a result of estimating the impact of service investment, and make available

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<sup>7</sup> The data used within the TVM are scaled to an average value of 100, with the attributes of service set to current operational performance levels. The average utility for all taxpayers across all service needs and all segments is scaled to a Taxpayer Value of 0 if all channel attributes are set at their worst conjoint levels, and the average utility for all taxpayers across all service needs and all segments is scaled to a Taxpayer Value of 100 if all channel attributes are set at their current conjoint levels (the base case). For more information, see Appendix B.

<sup>8</sup> 2008 W&I Market Segment Survey (Tax Year 2007).



the exact method and assumptions used to generate results.<sup>9</sup> Ideally, these templates will record information that will maintain transparency and offer the potential for repetition of analysis and results.<sup>10</sup> This template requires description of the justification for using the TVM, justification for the service channel selected, a record of the means used to provide estimates of the impact on the service environment, and a record of assumptions related to the development of taxpayer value measures.

Another current limitation of the TVM is the assumption that the eight service needs covered by the model are equally important across the taxpayer base. The conjoint method uses only descriptions to convey the importance of various taxpayer service needs rather than specifically asking taxpayers to define which issues would matter most to them. This limitation could be addressed in several ways, including weighting the value metric for the different service needs within the TVM according to additional information to estimate the importance of particular service needs. One way to do this, based on information currently available, is to set weights equal to the relative incidence of inquiries across all channels. In addition, possible future experimental research on how taxpayers understand and behave within the tax process might provide improved estimates of the importance taxpayers place on different types of service.

Finally, as the dataset used to populate the model ages, both base case estimates (currently observed attribute levels by channel) and taxpayer preferences may change. It is recommended that this research be replicated at least every 3–4 years.

## **Reasons to Use TVM**

The TVM was built to bring the taxpayer into the decisionmaking process; help build new offerings; and adjust existing service provision that meets taxpayer preferences. Bringing the taxpayer perspective into the business case development and comparative decision process, the Taxpayer Value Model will catalyze creative thinking and exploration of options that likely would not have been considered under function-based planning. As a means of comparison during the decision process, the TVM offers the capacity to generate comparable results over time, across business divisions, and among service channels and segments of taxpayers. As such, it is a good first step for the IRS to take toward determining “which services it can deliver to

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<sup>9</sup> See Appendix A.

<sup>10</sup> Repeating older analysis with newer data, and comparing this to actual operational data where implementation proceeded, may provide opportunities for additional refinement of the TVM.

various demographic groups, and the channel, or means of delivery, that each group needs and prefers.”<sup>11</sup> Though not a sole deciding measure in and of itself, TVM results bring the perspective of the taxpayer into consideration as decisions about changes to service provision occur.

## How Does TVM Fit into the Decision Making Process?

Beyond the limitations of the model, there are substantial limitations on how the results it generates should be used. Given all that the TVM can offer, it is important to recognize that it is not a single solution to the task of refining IRS taxpayer service. From the beginning, the TVM was conceived of as a single input among several under consideration within the investment decision process. As the TAB Phase 2 report states, “modeling and analysis can provide input to the questions cited above, but astute strategy development requires more than forecasts of what might happen under different funding scenarios. It requires choices that are most likely to further service goals, build on IRS resources and talents, and remain feasible and sustainable in planning and budget decisions.”<sup>12</sup>

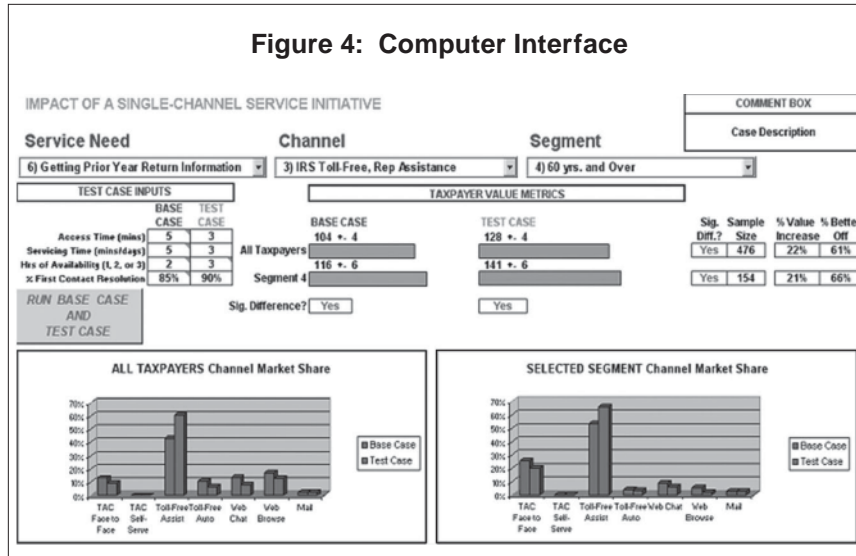
## Using the TVM

TVM can be applied to several related aspects of the decisionmaking process for evaluating changes in service delivery by the IRS. The TVM will work best when applied to a specific business case for a new way of providing service, significant procedural changes, or adjustments in policy where measurable change is expected. The TVM depends on a measurable change in the attributes of taxpayer service to return an estimate of how this change might impact taxpayer value. In addition to the capacity to measure larger initiatives with potential for substantial impact across multiple service channels, multiple service activities, and a variety of taxpayer segments, the TVM can also be used on a small scale. The impact of minor changes in the service environment on taxpayer value, as long as they realize change in the attributes known to be important to taxpayers, can be assessed using the TVM.

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<sup>11</sup> 2008 NTA Report to Congress, p. 101. See, e.g., National Taxpayer Advocate 2005 Annual Report to Congress 7; National Taxpayer Advocate 2006 Annual Report to Congress, Volume 2, *Study of Taxpayers Needs, Preferences, and Willingness To Use IRS Services* 14.

<sup>12</sup> TAB Phase 2 Report, p. 126.



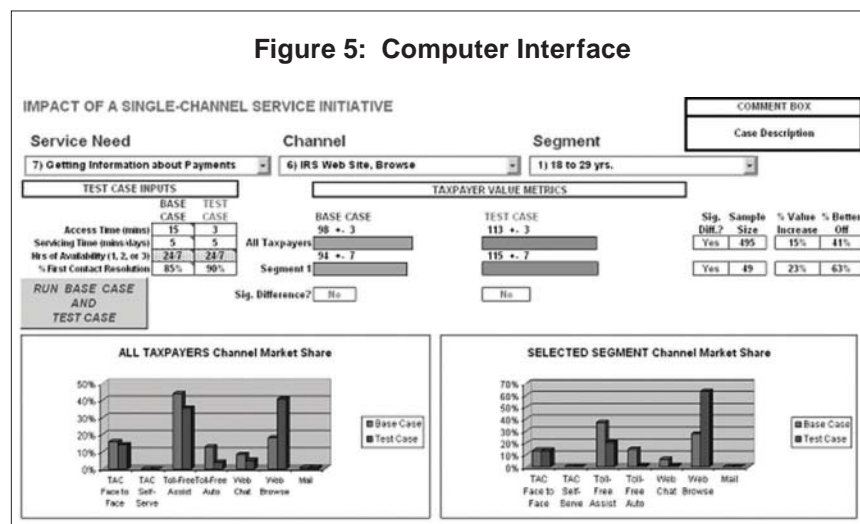
The first step in applying the Taxpayer Value Model is completion of a description of the proposed initiative or procedural change. This definition typically includes selection of a service channel or channels, as well as the types of service needs that the proposed initiative or process change will impact. After defining the proposed change or initiative and the relevant channel(s), estimates for impact on the taxpayer service environment should be created. The proposed initiative or change must be assessed for its impact on the four attributes found to be most important to taxpayers: time required to access service, time required to get service, probability of first contact resolution, and hours of service availability. These values will be the basis for estimating the interaction between known levels of preference for service needs and channels as the attributes of service are changed.

Figure 4 is a screenshot of the actual computer interface users work with to run the model. The estimates of impact on access time, service time, first contact resolution, and hours of availability are entered in the four boxes under the heading Test Case, and are then compared with a "Base Case" that represents the averages of currently observed service attribute levels by channel. In Figure 4, access time improved from 5 to 3 minutes, and servicing time also improved from 5 to 3 minutes. In addition, with the example below in Figure 4, the hours of availability were changed to option 3, representing an increase above normal business

<sup>13</sup> Hours of availability are currently described as three levels. Level 1 is business hours, level 2 business and evenings, and level 3 is business hours evenings and weekends.

hours to include evenings and weekends, and the likelihood of first contact resolution changed from 85 percent to 90 percent.<sup>13</sup>

After defining the impact of the proposed initiative or process change on the attributes of service, the service need and channel (or multiple channels) are selected. Next, a segment of the overall taxpayer base (or all taxpayers) is selected. Model output includes the overall value to all taxpayers (128 in this case) and to the chosen segment of the new option (141), compared with a base case of what is observed in the marketplace today (here, 104 for all taxpayers and 116 for the 60-and-over segment), projected market shares for each of the channels based on the option being tested (also compared with the base case) and statistical tests of significance of the change in value relative to the base case.

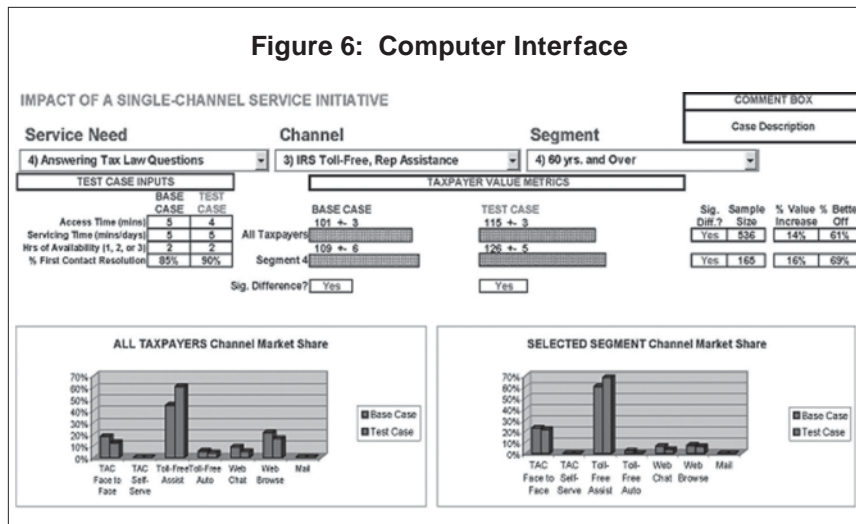


Flexibility in operating the TVM offers the opportunity for multiple estimates of taxpayer value relative to a range of potential changes in the taxpayer service environment.

## Examples

The example below shows the changes in taxpayer value that might result from an initiative providing taxpayers online access to their tax account information in much the same way that banks and credit cards provide similar information now. In this example, such an account would decrease taxpayer

access to the relevant information about their tax situations from 15 minutes to 3 minutes. In addition, the likelihood that they would find accurate information increases from 85 percent to 90 percent. With that change, a noticeable improvement in taxpayer value occurs, both for all taxpayers and those taxpayers between the ages of 18 and 29 (other segments could also be evaluated). Figure 5 shows the results as they would appear on the TVM screen, complete with assessment of the statistical significance of these



estimates. As referenced above, the 2 bar charts at the bottom of the TVM screen show the changes in market share that, given awareness of available options and action on preference, would result from these changes in the service environment.

A second example of applying the Taxpayer Value Model can be constructed relative to the current Customer Online Decision Support (COLDS) effort. The COLDS system will, after the completion of phase 2, supply the same decision tree to customer service representatives in Taxpayer Assistance Centers and to representatives working IRS phone service lines. This decision tree, designed to help isolate the service need, will also be available to taxpayers online.

In this hypothetical scenario, the taxpayer service need where the impact of COLDS will be estimated is "answering a tax law question." The Service channel where the impact of taxpayer value is to be assessed will be the IRS toll-free phone line with a service representative, and the specific

**Figure 7: Taxpayer Value Metrics**

	Base Case	Test Case	Percent Value Increase	Percent Better Off
All Taxpayers	101	115	+14%	61%
Taxpayers 60 years and older	109	126	+16%	69%

segment of the taxpayer population where taxpayer value will be gauged is taxpayers “60 years and over.”

The working assumptions are that taxpayer access time to the correct service provider to deliver an answer to a tax law question will be decreased. At a conservative estimate, the access time improves from 5 minutes to 4. A second operational assumption is that the Interactive Tax Law Assistant/ Customer Online Decision Support (ITLA/COLDS) system will, because of improved routing and increased understanding of the taxpayer issue, result in improved first contact issue resolution. As a result, a 5-percent improvement in first contact resolution moves the resolution rate in the model from 85 percent to 90 percent. In this analysis, the attributes of service time and hours of availability are presumed to be unchanged by ITLA/COLDS. After entering these values into the model and running analysis, the resulting main screen looks like Figure 6.

The impact on taxpayer value realized by the changes outlined above are captured in Figure 7. Note that, though all taxpayers will realize an improvement in the value of the service provided for tax law questions over the phone, taxpayers in the 60-and-over segment will enjoy an even greater increase in value.

## Factors of the TVM Be Addressed Going Forward

### Attributes Describe Service

Because the TVM is built on taxpayer understanding and valuation of service attributes, these features of service must accurately represent what is important to taxpayers. Subsequent conjoint data collection efforts must revisit the features of service experience that are important to taxpayers, either directly through experimentation or through exploratory research. This will help keep the best attributes framed for subsequent data collection efforts. Experimental research might, in addition to other things, yield information to help appropriately weight different service needs according to the importance placed on that type of service need by taxpayers.

### **Limitations of Data**

The initial focus of the conjoint analysis was W&I taxpayers only. To the extent that taxpayer value is freely interchangeable regardless of the types of entity the taxpayer represents, the TVM can be used to estimate changes for other categories of IRS taxpayers. However, the extent to which SBSE and TEGE constituents vary from W&I taxpayers must be addressed, ideally with additional data collection efforts.

### **Use Versus Awareness**

As discussed earlier, one potential drawback of the conjoint method used to gather data for the TVM is the distinction between preference and actual use. For example, while awareness of the Web site and toll-free telephone line is now reasonably high (82 percent and 80 percent, respectively), just 34 percent of taxpayers have used the Web site, and 21 percent have used the toll-free line in the past 12 months.<sup>14</sup> Just 61 percent are aware of local IRS offices, and only 5 percent have used them in the past 12 months.<sup>15</sup> Future development of the model will, ideally, have the capacity to account for varying levels of awareness across the taxpayer base and within different segments of the taxpaying population.

### **The Age of the Data Set**

Also, as discussed earlier, there is the issue of the currency of the underlying survey data TVM depends on for estimates of taxpayer value. The conjoint data set is now nearly 3-years-old. To the extent that taxpayers shift preferences over time, the underlying conjoint data base should be updated periodically.

### **Conclusion**

The TVM accomplishes analysis that is uniform, durable, simple, and transparent, and in a way that clearly brings the preferences of the taxpayers into play during the decisionmaking process. In addition to providing an estimate of taxpayer value for proposed changes in the service environment, the TVM can serve as a valuable point of reference to help bring taxpayer perspective into the culture of the IRS. Because it relies on external data generated solely to represent taxpayer preference, the TVM permits comparable estimates of the impact of service changes on taxpayer value, regardless of the location

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<sup>14</sup> 2008 W&I Market Segment Survey (Tax Year 2007).

<sup>15</sup> *ibid.*

of proposed changes within the IRS. As an independent tool for consistent comparison across the enterprise, the TVM offers the opportunity to create reference points against which the evolution of the service environment can be charted, lessons learned, and successes documented. Though clearly not a panacea that will suddenly and without consequence bring perfect unison between IRS service and the expectations of taxpayers, the TVM decision support tool provides a solid first step toward universal and systematic inclusion of the taxpayer perspective in business decisions within the IRS.

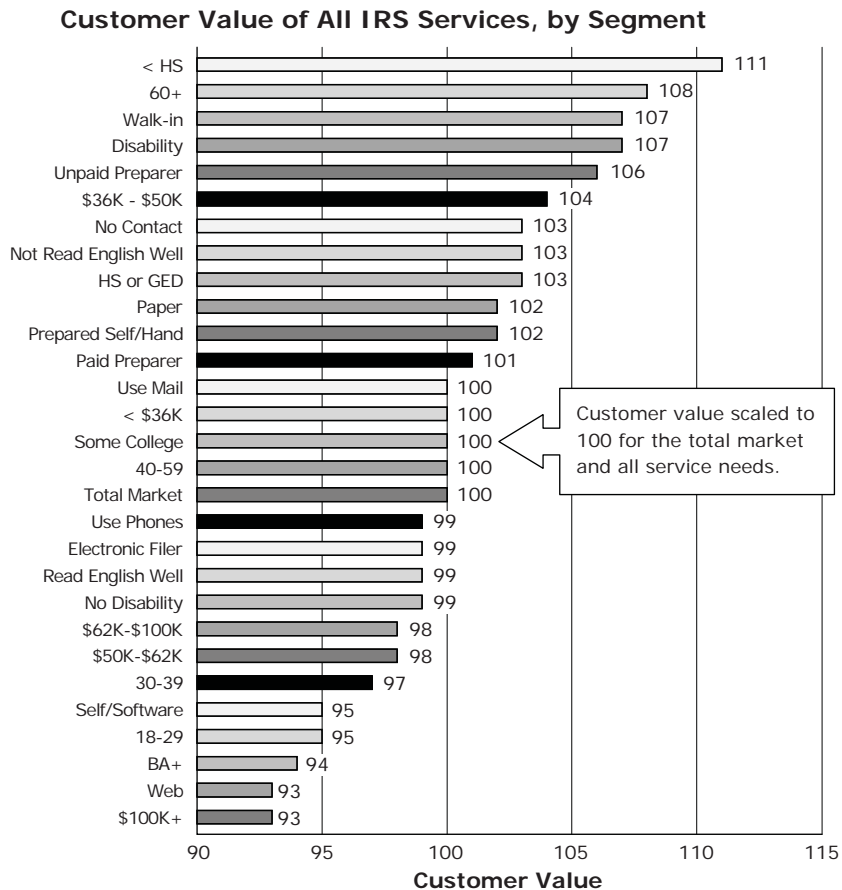


## **Appendix A: Analysis Template—Used to Provide Consistency and Transparency in TVM Analysis Process**

<b>TAXPAYER VALUE MODEL (TVM)—ANALYSIS TEMPLATE</b>	
Initiative Title:	
Date:	TVM File Name:
Service Need:	
Service Channel:	
Taxpayer Segment:	
Segment Rationale:	
Business Estimate of Change in Access Time:	
Basis for Change in Access Time:	
Business Estimate of Change in Servicing Time:	
Basis for Change in Servicing Time:	
Business Estimate of Change in Hours of Operation:	
Basis for Change in Hours of Operation:	
Estimate of Change in First Contact Resolution:	
Basis for Change in First Contact Resolution:	
Run By:	

## Appendix B: Normalizing Taxpayer Value Scores

In constructing this scale, the model assumes that taxpayers, no matter what the attribute settings, will select their highest utility or first choice channel. Using this scale, some service needs will have current Taxpayer Values of less than 100 and some more than 100 because different service needs have different average utilities. Similarly, different segments will have different current Taxpayer Values because different segments have different average utilities. In any case, the Taxpayer Value will go up when the average utility goes up. Most importantly, any Service Package that has improved attributes will have a Taxpayer Value higher than its current value.



**7**



## **Appendix**

**Conference Program**  
**List of Attendees**

**2009 IRS Research Conference Program  
July 8-9, Georgetown University Law School  
McDonough Hall, Hart Auditorium**

**DAY ONE: Wednesday, July 8**

8:00-8:45      **Registration**

8:45-9:00      **Welcome**  
Mark J. Mazur, Director,  
Research, Analysis, and Statistics,  
Internal Revenue Service

9:00-9:30      **Keynote Address**  
Douglas Shulman, Commissioner,  
Internal Revenue Service

9:30-10:30    **Panel Discussion:**  
Is There a Gap in the Tax Gap Estimates?

**Moderator:**  
Mark J. Mazur, Director,  
Research, Analysis, and Statistics,  
Internal Revenue Service

**Panelists:**  
Ed Emblom, Research, Analysis, and Statistics,  
Internal Revenue Service,  
Marsha Blumenthal, University of St. Thomas,  
Lawrence B. Gibbs, Miller & Chevalier

10:30-10:50    **BREAK**

10:50-12:20    **Tax Systems and Taxpayer Behavior**

**Moderator:**  
Don McPartland, Large & Mid-Size Business,  
Internal Revenue Service

**Papers:**

- *Measuring the Impact of Tax Systems on Economic Behavior Using New Cross-Country Data*, Leslie Robinson, Tuck School of Business at Dartmouth and Joel Slemrod, University of Michigan
- *A Panel Analysis of Behaviour Change in Canadian Individual Income Tax Compliance*, Attah Boame, Canada Revenue Agency
- *Would the Principles of 'Flat Tax' Lead to Simplification of the UK Corporate Tax System and How Would Taxpayers Respond? Evidence from the Recent Changes to Capital Gains Tax*, Peter Jelfs, Mazars LLP and Andrew Lymer, University of Birmingham

**Discussant:**

Pamela Olson, Skadden, Arps, Slate, Meagher & Flom LLP

12:20-1:45

**Lunch**

1:45-2:00

**Presentation of IRS Research Recognition Awards**

2:00-3:30

**The Tax Behavior of Corporations****Moderator:**

David Stanley, Large and Mid-Size Business Division, Internal Revenue Service

**Papers:**

- *Preliminary Results of the 2003/2004 National Research Program S Corporation Underreporting Study*, Drew Johns, Research, Analysis, and Statistics, Internal Revenue Service
- *Does FIN 48 Benefit Tax Authorities through Increase in Taxpayer Compliance?*, Ho Jin Lee, Chief Counsel, Internal Revenue Service, Sangjik Lee, Hankuk University of Foreign Studies, and

- Akinori Tomohara, Aoyama Gakuin University
- *Analyzing the Enhanced Relationship between Corporate Taxpayers and Revenue Authorities: A United Kingdom Case Study*, Judith Freedman, Geoffrey Loomer, and John Vella, Oxford University

**Discussant:**

George Plesko, University of Connecticut,  
School of Business

3:30-3:45

**BREAK**

3:45-4:45

**Measuring and Facilitating Low-Income Tax Benefits****Moderator:**

Martha Eller Gangi, Research, Analysis, and Statistics,  
Internal Revenue Service

**Papers:**

- *TY2005 Earned Income Tax Credit Participation Rate*, Amy O'Hara (Census Bureau) and Dean Plueger, Wage & Investment, Internal Revenue Service
- *The Pattern of EITC Claims Over Time: A Panel Data Analysis*, Deena Ackerman, Office of Tax Analysis, U.S. Department of the Treasury, Janet Holtzblatt, Congressional Budget Office, and Karen Masken, Research, Analysis, and Statistics, Internal Revenue Service
- *A Tax Education and Asset Building Campaign for Low-Income and Limited-English Worker Populations*, Bárbara J. Robles, Arizona State University

**Discussant:**

Janet McCubbin, AARP Public Policy Institute

6:00-7:00

**Poster Session and Social Hour**

The Liaison Capitol Hill

Please refer to following page for session program.

**DAY TWO: Thursday, July 9**

8:30-10:00     **Issues Affecting High-Wealth Individuals Moderator:**  
Anne Parker, Small Business/Self-Employed, Internal Revenue Service

**Papers:**

- *The Income-Wealth Paradox: Connections between Realized Income and Wealth Among America's Aging Top Wealth-Holders*, Barry Johnson and Lisa Schreiber, Research, Analysis, and Statistics, Internal Revenue Service, and Kevin Moore, Federal Reserve
- *Addressing the Tax Risk from the Use of Tax Havens by Promoting Voluntary Compliance*, Fuchan Luan and Ross Robertson, Australian Taxation Office
- *Overcoming Overdisclosure: Toward Tax Shelter Detection*, Joshua D. Blank, Rutgers University School of Law

**Discussant:**

Len Burman (The Urban Institute)

10:00-10:20     **BREAK**

10:20-11:50     **Tax Preparation Services**

**Moderator:**

Chris Hess, Research, Analysis, and Statistics, Internal Revenue Service

**Papers:**

- *Cognitive Ethical Reasoning of Tax Practitioners: A Preliminary Investigation Using a Tax-Specific Version of the Defining Issue Test (DIT)*, Elaine Doyle, University of Limerick, Jane Frecknall-Hughes, Open University Business School, and Barbara Summers, Leeds University Business School

- *Increasing Preparer Responsibility, Visibility, and Competence*, Leslie Book, Villanova University School of Law
- *Taxpayer Value Model: Incorporating Taxpayer Perspective To Improve Service Interactions*, Pete Web, Pacific Consulting Group, Ben Shackelford, Wage & Investment, Internal Revenue Service, and Peter Morris and Chuck Feinstein, VMN Group

**Discussant:**

Nina Olson, National Taxpayer Advocate,  
Internal Revenue Service

11:50-12:00

**Closing Remarks**

Janice Hedemann, Director, Office of Research,  
Internal Revenue Service



**List of Attendees**  
**IRS Research Conference**  
**Georgetown University Law Center**  
**July 8-9, 2009**

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**Louis Acevedo**

IRS, Small Business/Self-Employed

**Deena Ackerman**

U.S. Department of the Treasury

**Jonathan Adams**

Eastport Analytics, Inc.

**Peter Adeisheim**

IRS, Small Business/Self-Employed

**Nancy Ahn**

IRS, Research, Analysis, and Statistics

**Henry Ajagbawa**

Government of the District of Columbia

**Kay Anderson**

IRS, Wage & Investment

**Linda Baker**

U.S. Government Accountability Office

**Mary Baker**

Senate Finance Committee

**Donna Baldwin**

IRS, Research, Analysis, and Statistics

**Gregory Baldwin**

IRS, Research, Analysis, and Statistics

**Anna Barlett**

Government of the District of Columbia

**Paul Bastuscheck**

IRS, Research, Analysis, and Statistics

**Tom Beers**

IRS, National Taxpayer Advocate

**James Bellefeuille**

IRS, Tax Exempt & Government Entities

**Carolyn Bennett**

IRS, Research, Analysis, and Statistics

**Philip Beram**

U.S. Chamber of Commerce

**Jodi Beshara**

SAS Institute

**Amy Bishop**

U.S. Government Accountability Office

**Ted Black**

IRS, Research, Analysis, and Statistics

**Joshua Blank**

Rutgers School of Law-Newark

**Kim Bloomquist**

IRS, Research, Analysis, and Statistics

**Marsha Blumenthal**

University of St. Thomas

**Attah Boame**

Canada Revenue Agency

**Leslie Book**

Villanova University School of Law

**Theresa Bowlding**

Government of the District of Columbia

**Charles Boynton**

IRS, Large & Mid-Size Business

**Edith Brashares**

U.S. Department of the Treasury

**Carlton Brewster**

Government of the District of Columbia

**Spencer Brien**

IRS, Research, Analysis, and Statistics

**Takisha Brown-McGee**  
IRS, Office of Professional Responsibility

**Victoria Bryant**  
IRS, Research, Analysis, and Statistics

**Melanie Bryson**  
IRS, Small Business/Self-Employed

**Edward Brzezinski**  
IRS, Small Business/Self-Employed

**Kenneth Bulcroft**  
IRS, Small Business/Self-Employed

**Nicholas Bull**  
Joint Committee on Taxation

**Fredericka Bunting**  
IRS, Large & Mid-Size Business

**Thomas Burger**  
IRS, Research, Analysis, and Statistics

**Charles Burk**  
IRS, Small Business/Self-Employed

**Len Burman**  
The Urban Institute

**Jeff Butler**  
IRS, Research, Analysis, and Statistics

**Tyrone Byrd**  
IRS, Small Business/Self-Employed

**Wanda Canada**  
IRS, Small Business/Self-Employed

**Barry Cantor**  
Cantor Tax Law

**Francis Cappelletti**  
IRS, Large & Mid-Size Business

**May Carpio**  
IRS, Large & Mid-Size Business

**Renita Carter**  
IRS, Large & Mid-Size Business

**Leanora Caruth**  
Government of the District of Columbia

**Meichi Chan**  
IRS, Wage & Investment

**Winnie Chang**  
Senate Committee on the Budget

**Paul Chen**  
IRS, Research, Analysis, and Statistics

**Helen Choi**  
IRS, Large & Mid-Size Business

**Michelle Chu**  
IRS, Research, Analysis, and Statistics

**Paul Cinquemani**  
National Association of Tax Professionals

**James Clarkson**  
IRS, Large & Mid-Size Business

**Ciyata Coleman**  
IRS, Wage & Investment

**Williams Conroy**  
IRS, Office of Chief Counsel

**Miles Cooper**  
IRS, Wage & Investment

**Paul Corcoro**  
IRS, Small Business/Self-Employed

**Debi Coyle**  
IRS, Large & Mid-Size Business

**Thomas Curtin**  
IRS, Office of Professional Responsibility

**Rafael Dacal**  
IRS, Small Business/Self-Employed

**Charlie Daniel**  
U.S. Government Accountability Office

**Ebenezer Daniels**  
IRS, Wage & Investment

**John Davidson**

IRS, Large &amp; Mid-Size Business

**Bruce Davis**

IRS, Wage &amp; Investment

**Kirsten Davis**

IRS, Wage &amp; Investment

**Melissa Dedrick**

IRS, Small Business/Self-Employed

**Robert Delaney**

Canada Revenue Agency

**Scott Delaney**

IRS, Tax Exempt &amp; Government Entities

**Donald DeLuca**

IBM Global Business Services

**Joel Deuth**

Deloitte Tax, LLP

**Benjamin Devlen**

Multistate Tax Commission

**Sara Dir**

IRS, Wage &amp; Investment

**Lidia Dobrotescu**

Canada Revenue Agency

**Dennis Donahue**

U.S. Census Bureau

**Tim Dowd**

Joint Committee on Taxation

**Elaine Doyle**

University of Limerick

**Nicole Duarte**

Tax Analysts

**Elliott Dubin**

Multistate Tax Commission

**Jonathan Edelson**

IRS, Research, Analysis, and Statistics

**Ardeshir Eftekharzadeh**

IRS, Research, Analysis, and Statistics

**Edward Emblom**

IRS, Research, Analysis, and Statistics

**Brian Erard**

B. Erard &amp; Associates

**Mark Everett**

IRS, National Taxpayer Advocate

**Mario Fernandez**

IRS, Research, Analysis, and Statistics

**Terence Fitzpatrick**

Science Applications International Corp.

**Nikole Flax**

IRS, Tax Exempt &amp; Government Entities

**Darlene Forgy**

IRS, Large &amp; Mid-Size Business

**Cynthia Fox**

IRS, Large &amp; Mid-Size Business

**Javier Framinan**

IRS, Wage &amp; Investment

**Norton Francis**

Government of the District of Columbia

**Emily Franxman**

IRS, Large &amp; Mid-Size Business

**Judith Freedman**

University of Oxford

**Amy Friedlander**

U.S. Government Accountability Office

**Nancy Fullerton**

IRS, Research, Analysis, and Statistics

**Althea Fulton**

IRS, Wage &amp; Investment

**Martha Gangi**

IRS, Research, Analysis, and Statistics

---

<b>Marcella Garland</b> IRS, Research, Analysis, and Statistics	<b>John Guyton</b> IRS, Research, Analysis, and Statistics
<b>Fikre Gedamu</b> IRS, Large & Mid-Size Business	<b>Susan Gyeszly</b> Arizona State University
<b>Lawrence Gibbs</b> Miller & Chevalier Chartered	<b>Cynthia Hamill</b> IRS, Tax Exempt & Government Entities
<b>Duane Gillen</b> IRS, Small Business/Self-Employed	<b>Wendy Handin</b> IRS, Small Business/Self-Employed
<b>Mark Gillen</b> Deloitte Consulting	<b>Andrew Hanna</b> IRS, Research, Analysis, and Statistics
<b>Chris Giosa</b> IRS, Tax Exempt & Government Entities	<b>William Hannon</b> IRS, Research, Analysis, and Statistics
<b>Valerie Glasker-Muse</b> IRS, Electronic Tax Administration	<b>Heidi Hartmann</b> Institute for Women's Policy Research
<b>Douglas Gleason</b> IRS, Office of Professional Responsibility	<b>Carol Hatch</b> IRS, National Taxpayer Advocate
<b>Eric Gorman</b> U.S. Government Accountability Office	<b>Karen Hawkins</b> IRS, Office of Professional Responsibility
<b>Caryl Grant</b> IRS, Communications & Liaison	<b>Melissa Hayes</b> IRS, Wage & Investment
<b>Leon Green</b> U.S. Government Accountability Office	<b>Janice Hedemann</b> IRS, Research, Analysis, and Statistics
<b>Arnie Greenland</b> IBM Global Business Services	<b>Kimberly Henry</b> IRS, Research, Analysis, and Statistics
<b>Timothy Greiner</b> Treasury Inspector General for Tax Administration	<b>Patricia Henry</b> Government of the District of Columbia
<b>Stan Griffin</b> IRS, Wage & Investment	<b>Chris Hess</b> IRS, Research, Analysis, and Statistics
<b>Mark Guerin</b> IRS, Large & Mid-Size Business	<b>Andrea Hicks</b> IRS, Research, Analysis, and Statistics
<b>Eric Guthrie</b> IRS, Research, Analysis, and Statistics	<b>Sandra Hill</b> IRS, Wage & Investment
<b>George Guttman</b> U.S. Government Accountability Office	<b>Chih-Chin Ho</b> National Taiwan University

**Steve Holt**

HoltSolutions

**Janet Holtzblatt**

Congressional Budget Office

**Rachael Hooker**

IRS, Research, Analysis, and Statistics

**Ririko Horvath**

IRS, Research, Analysis, and Statistics

**Jeremy Howard**

ASR Analytics,

**Taukir Hussain**

IRS, Research, Analysis, and Statistics

**Marc Hyman**

American Institute of Certified Public Accountants

**Amy Ibbotson**

IRS, National Taxpayer Advocate

**Adekunle Idowu**

Government of the District of Columbia

**Harvey Iglarsh**

McDonough School of Business - Georgetown University

**Jael Jackson**

IRS, Research, Analysis, and Statistics

**Madeline Jackson**

IRS, Research, Analysis, and Statistics

**Larry Jacobs**

IRS, Wage &amp; Investment

**Darien Jacobson**

IRS, Research, Analysis, and Statistics

**Peter Jelfs**

Mazars LLP

**Mary Jezek**

IRS, Research, Analysis, and Statistics

**Michael Joe**

Tax Analysts

**Drew Johns**

IRS, Research, Analysis, and Statistics

**Anita Johnson**

IRS, Wage &amp; Investment

**Barry Johnson**

IRS, Research, Analysis, and Statistics

**Lynn Johnson**

U.S. Department of Labor

**Richard Julien**

Eastport Analytics, Inc.

**Ken Kaufman**

IRS, Research, Analysis, and Statistics

**Lou Ann Kelleher**

IRS, Small Business/Self-Employed

**Imraan Khakoo**

IRS, Tax Exempt &amp; Government Entities

**Janet Kmitch**

Bureau of Economic Analysis

**Martin Knudsen**

SKAT - The Danish Tax and Customs Administration

**Patricia Kopf**

IRS, Large &amp; Mid-Size Business

**Lawrence Korb**

U.S. Government Accountability Office

**Melissa Kovalick**

IRS, Research, Analysis, and Statistics

**Howard Krakower**

Bureau of Economic Analysis

**Elizabeth Kruse**

IRS, Research, Analysis, and Statistics

**Saket Kumar**

Booz Allen Hamilton

**Charles Lacijan**

IRS Oversight Board

**Melissa Laine**

IRS, Research, Analysis, and Statistics

**Patrick Langetieg**

IRS, Research, Analysis, and Statistics

**Eric J. Larsen**

IRS, Wage &amp; Investment

**Eric R. Larsen**

IRS, Small Business/Self-Employed

**Ho Jin Lee**

IRS, Office of Chief Counsel

**Jason Lee**

IRS, Research, Analysis, and Statistics

**Sangjik Lee**

Hankuk University of Foreign Studies

**Wu-Lang Lee**

IRS, Research, Analysis, and Statistics

**Ellen Legel**

IRS, Research, Analysis, and Statistics

**Kara Leibel**

IRS, Research, Analysis, and Statistics

**Allen Lerman**

U.S. Department of the Treasury

**Raj Leyl**

IRS, Electronic Tax Administration

**Sandy Lin**

IRS, Research, Analysis, and Statistics

**Petro Lisowsky**

University of Illinois at Urbana - Champaign

**Wei Liu**

IRS, Research, Analysis, and Statistics

**Christine Longo**

IRS, Research, Analysis, and Statistics

**Geoffrey Loomer**

University of Oxford

**Jose Lopez**

IRS, Large &amp; Mid-Size Business

**Eric LoPresti**

IRS, National Taxpayer Advocate

**Tom Louthan**

Deloitte Tax, LLP

**David Ludlum**

IRS, Research, Analysis, and Statistics

**Melissa Ludlum**

IRS, Research, Analysis, and Statistics

**Tim Lynn**

IRS, Wage &amp; Investment

**David Macias**

IRS, Large &amp; Mid-Size Business

**Terry Manzi**

IRS, Research, Analysis, and Statistics

**Bunn Martin**

IRS, Large &amp; Mid-Size Business

**Ruth Martinez**

IRS, Small Business/Self-Employed

**Karen Masken**

IRS, Research, Analysis, and Statistics

**Summer Mastous**

IRS, Small Business/Self-Employed

**Jeff Matsuo**

IRS, Research, Analysis, and Statistics

**Larry May**

IRS, Research, Analysis, and Statistics

**Mark Mazur**

U.S. Department of the Treasury

**Amy McAnarney**

H&amp;R Block

**Michael McCall**

IRS, Small Business/Self-Employed

**Timothy McCormally**

Tax Executives Institute

**Janet McCubbin**

AARP Public Policy Institute

**Wilma McDowell**

Government of the District of Columbia

**Mary Ellen McGovern**

IRS, Research, Analysis, and Statistics

**Patricia McGuire**

IRS, Research, Analysis, and Statistics

**Kevin McKenzie**

Canada Revenue Agency

**Don McPartland**

IRS, Large &amp; Mid-Size Business

**Floria McRae**

Government of the District of Columbia

**Joanne Meikle**

IRS, Research, Analysis, and Statistics

**Jenna Meints**

University of North Carolina at Chapel Hill

**Abebe Mekonnen**

Canada Revenue Agency

**Seth Meltzer**

IRS, Research, Analysis, and Statistics

**Roman Meyerovich**

Canada Revenue Agency

**Thomas Mielke**

IRS, Small Business/Self-Employed

**John Miller**

IRS, Large &amp; Mid-Size Business

**Tri Mobley**

IRS, Tax Exempt &amp; Government Entities

**Mandisa Mokwena**

South African Revenue Service

**J. Wayne Moore**

Independent Researcher &amp; Advisor

**Kevin Moore**

Board of Governors of the Federal Reserve Board

**Raymond Mooring**

IRS, Wage &amp; Investment

**Layne Morrison**

IBM Global Business Services

**Kevin Mullen**

IRS, Small Business/Self-Employed

**Deborah Myers**

IRS, Large &amp; Mid-Size Business

**Edward Nannenhorn**

U.S. Government Accountability Office

**Ned Nazzaro**

IRS, Research, Analysis, and Statistics

**Susan Nelson**

U.S. Department of the Treasury

**Mike Nestor**

IRS, National Taxpayer Advocate

**Jeffrey Niblack**

U.S. Government Accountability Office

**Nonna Noto**

Congressional Research Service

**Terry Nuriddin**

IRS, Research, Analysis, and Statistics

**Brian Oatley**

IRS, Small Business/Self-Employed

**Karen O'Connor**

U.S. Government Accountability Office

**Jim O'Donnell**

IRS, Research, Analysis, and Statistics

**Amy O'Hara**

U.S. Census Bureau

**Nina Olson**

IRS, National Taxpayer Advocate

**Pamela Olson**

Skadden, Arps, Slater, Meagher &amp; Flom LLP

**Roy Olson**

IRS, Tax Exempt &amp; Government Entities

**Dan Opitz**

IRS, Research, Analysis, and Statistics

**Michael Paleos**

IRS, Research, Analysis, and Statistics

**Ken Papali**

Government of the District of Columbia

**Mary Anne Parfitt**

IRS, Small Business/Self-Employed

**David Paris**

IRS, Research, Analysis, and Statistics

**Anne Parker**

IRS, Small Business/Self-Employed

**Joe Parker**

H&amp;R Block

**Julie Parker**

U.S. Census Bureau

**Mark Payne**

IRS, Research, Analysis, and Statistics

**Chaohui Peng**

Canada Revenue Agency

**Carol Pettit**

Congressional Research Service

**Kevin Pierce**

IRS, Research, Analysis, and Statistics

**Neil Pinney**

U.S. Government Accountability Office

**Kathie Pippig**

IRS, Large &amp; Mid-Size Business

**George Plesko**

University of Connecticut

**Dean Plueger**

IRS, Wage &amp; Investment

**Alan Plumley**

IRS, Research, Analysis, and Statistics

**Phillip Poirier**

Intuit, Inc.

**Kathryn Preston**

IRS, Small Business/Self-Employed

**Dick Prosser**

IRS, Wage &amp; Investment

**Mark Pursley**

IRS, Wage &amp; Investment

**Robin Rappaport**

IRS, Research, Analysis, and Statistics

**Ralph Rector**

U.S. Department of the Treasury

**Lloyd Reece**

IRS, Small Business/Self-Employed

**Deandra Reinhart**

IRS, Small Business/Self-Employed

**Mary Lane Renninger**

IRS, Research, Analysis, and Statistics

**Tammy Rib**

IRS, Research, Analysis, and Statistics

**Kyle Richison**

IRS, Research, Analysis, and Statistics

**Darla Riggan**

IRS, Large &amp; Mid-Size Business



**Mary-Helen Risler**

Joint Committee on Taxation

**Leslie Robinson**

Tuck School of Business at Dartmouth

**Reuben Robinson**

IRS, Small Business/Self-Employed

**Barbara Robles**

Arizona State University

**Pete Rogers**

IRS, Tax Exempt &amp; Government Entities

**Lisa Russ**

IRS, Research, Analysis, and Statistics

**Cliff Scherwinski**

IRS, Large &amp; Mid-Size Business

**Lisa Schreiber**

IRS, Research, Analysis, and Statistics

**Ronald Schultz**

IRS, Tax Exempt &amp; Government Entities

**Marybeth Schumann**

Treasury Inspector General for Tax Administration

**Al Schupmann**

IRS, Small Business/Self-Employed

**Ruth Schwartz**

IRS, Research, Analysis, and Statistics

**Lisa Scott**

IRS, Wage &amp; Investment

**Michael Sebastiani**

IRS, Research, Analysis, and Statistics

**Ben Shackelford**

IRS, Wage &amp; Investment

**Alex Shojay**

IRS, Electronic Tax Administration

**Thomas Short**

U.S. Government Accountability Office

**Joel Slemrod**

University of Michigan

**Lou-Virginia Smith**

U.S. Government Accountability Office

**Davy Sparkman**

IRS, Criminal Investigation

**Amy Sriuthai**

IRS, Research, Analysis, and Statistics

**David Stanley**

IRS, Large &amp; Mid-Size Business

**Mark Stanton**

IRS, Research, Analysis, and Statistics

**Anne Stevens**

U.S. Government Accountability Office

**Martha Stewart**

Treasury Inspector General for Tax Administration

**Scott Stilmar**

IBM Global Business Services

**Kimberly Stockton**

IRS, Research, Analysis, and Statistics

**Michael Strudler**

IRS, Research, Analysis, and Statistics

**Esmeralda Stuk**

IRS, Research, Analysis, and Statistics

**Jason Suber**

Booz Allen Hamilton, Inc.

**Clay Swanson**

IRS, Small Business/Self-Employed

**Craig Swinford**

IRS, Research, Analysis, and Statistics

**Gary Takahashi**

IRS, Large &amp; Mid-Size Business

**Daniel Tchouassi**

Canada Revenue Agency

**David Teale**

IBM Global Business Services

**Valerie Testa**

IRS, Research, Analysis, and Statistics

**Katie Thamert**

IRS, Research, Analysis, and Statistics

**Sylvie Thomas**

Revenue Quebec

**Rahul Tikekar**

IRS, Research, Analysis, and Statistics

**Akinori Tomohara**

Aoyama Gakuin University

**Alex Turk**

IRS, Small Business/Self-Employed

**Ethne Turowski**

IRS, Large &amp; Mid-Size Business

**Jim Ungvarsky**

U.S. Government Accountability Office

**Barbara Vaira**

IRS, Research, Analysis, and Statistics

**Umang Varma**

Booz Allen Hamilton

**Hernan Velarde**

IRS, Small Business/Self-Employed

**Melissa Vigil**

IRS, Research, Analysis, and Statistics

**Snezana Vucic**

Canada Revenue Agency

**Carol Wade**

IRS, Large &amp; Mid-Size Business

**Cheryl Wagner**

IRS, Research, Analysis, and Statistics

**Jeff Wallbaum**

IRS, Tax Exempt &amp; Government Entities

**Ronald Walsh**

IRS, Research, Analysis, and Statistics

**Pete Webb**

Pacific Consulting Group

**Mike Weber**

IRS, Research, Analysis, and Statistics

**Robert Weinberger**

H&amp;R Block

**Joann Weiner**

George Washington University

**Matthew Weir**

IRS, Small Business/Self-Employed

**Joseph West**

IRS, Large &amp; Mid-Size Business

**Leann Weyl**

IRS, Research, Analysis, and Statistics

**Roger Wheeler**

KPMG LLP

**Elwood White**

U.S. Government Accountability Office

**James White**

U.S. Government Accountability Office

**James Wilhelm**

IRS, Large &amp; Mid-Size Business

**David Williams**

IRS, Electronic Tax Administration

**Floyd Williams**

IR, Communications &amp; Liaison

**Kareem Williams**

IRS, Small Business/Self-Employed

**David Wilson**

Government of the District of Columbia

**Jeff Wilson**

IRS, National Taxpayer Advocate

**Susan Wittman**

IRS, Large &amp; Mid-Size Business

**Kay Wolman**

IRS, Research, Analysis, and Statistics

**Nichole Wormsley**

Government of the District of Columbia

**Lini Wu**

IRS, Research, Analysis, and Statistics

**Karen Yeager**

IRS, Research, Analysis, and Statistics

**Monica Yeung**

Canada Revenue Agency

**Getaneh Yismaw**

IRS, Research, Analysis, and Statistics

**Yan Zeng**

IRS, Wage &amp; Investment

**John Zombro**

U.S. Government Accountability Office